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SRI Project 1933

January 1974

Technical Note  
SSC-TN-1933-1

IMPLICATIONS OF INDIAN AND/OR JAPANESE NUCLEAR  
PROLIFERATION FOR U.S. DEFENSE POLICY PLANNING (U)

Summary Report, including Executive Summary

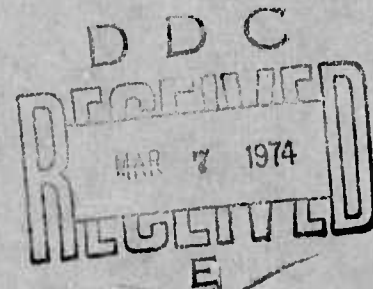
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By: R. M. LAWRENCE  
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## Executive Summary

The acquisition of nuclear weapons by Japan and India would pose a number of problems for the United States. Although historically it has been a basic tenet of U.S. policy that any increase in the number of states possessing nuclear weapons is automatically judged to be detrimental to U.S. interests and to world stability, an examination of the current world situation indicates that neither U.S. interests nor international stability would be inexorably disrupted by such a development—particularly if the new nuclear power was an ally of the United States, as is Japan.

In the context of the Nixon Doctrine, in which the United States attempts to find equilibrium in the world power balance including a balance in the Asian-Pacific theater, U.S. defense interests in this area might be summarized as follows:

- To encourage Japan to assume a larger share of the burden for regional security;
- To support self-defense and social, economic, and political efforts by allies and other noncommunist nations;
- To promote regional security arrangements which include the contribution of material and technical aid when desired; and
- To maintain the credibility of present U.S. commitments and prevent coercion by the USSR or China of nations deemed vital to U.S. interests.

The United States should realize, however, that the nations of the Asian-Pacific area may be convinced that American military presence and policy are not sufficient to ensure their own security. Therefore, those nations possessing the technical capability may choose to enhance their own security via the development of nuclear weapons.

Such weapons, when possessed by Japan or India, could contribute to an increasingly stable power balance in the Asian-Pacific region by countervailing both the power of the USSR and China and other destabilizing movements in Asia. U.S. interests could be viewed as enhanced particularly if Japan or India accompanied the acquisition of nuclear weapons with the development of technical and political safeguards against their accidental use.

The existence of a self-reliant India which is not allied with the USSR against the United States but which could assure the integrity of the subcontinent and security of the Indian Ocean and Himalayas would be consistent with U.S. national security objectives. In the same way, a Japanese nuclearized Self-Defense Force would provide a deterrent to the threat from its two nuclear communist neighbors. The Indian weapon would presumably pose no direct threat to the United States due to range constraints as well as political considerations, and even if Japanese weapons had the range capability they would not be considered any more of a threat than British or French SLBMs.



The United States can influence but not determine an Indian or Japanese decision not to go nuclear. Therefore, American interests may be better served by working with and trying to shape the nuclear development and planning that does take place. A certain degree of Indian/Japanese dependence upon the United States is viewed as beneficial in the context of weapons acquisition, not only because it would exclude dependence upon the USSR and China but also because it could provide a measure of leverage for the United States in future contingencies.

In the event of the acquisition of nuclear weapons by Japan or India, the United States has the following alternative response options:

#### A. Alternatives Prior to Commitment To Go Nuclear

1. Increased U.S. nonnuclear military and technical assistance to both nations in an attempt to strengthen conventional military forces and thereby lessen the security concerns that could be forcing nuclear weapons acquisition.
2. More explicit and credible nuclear guarantees against nuclear threats from their neighbors, on both the tactical and the strategic level.
3. Political—diplomatic pressure against the decision to go nuclear coupled with support for Indian and Japanese political or diplomatic objectives such as increased political stature.
4. Economic pressure by the extension or withholding of grants in aid—i.e., to India, agricultural goods and technology; to Japan, U.S. imports and technology.
5. A transfer of U.S. nuclear weapons to India and Japan, approved by the Congress and incorporating control technologies that assure the nonuse of weapons in any mode for which they were not specifically transferred.

#### B. Alternatives After Commitment To Go Nuclear

1. A program of dissuasion or obstruction, which would be politically infeasible, inimical to overall U.S. objectives, and quite likely to be counterproductive.
2. A position of passive acceptance, which the United States could adopt while continuing to disapprove of weapon development because of the lack of practical alternatives to dissuasion or obstruction.
3. Active cooperation and assistance, which should be considered in order to prevent Japan from moving away from the United States and into a Soviet or Sino alliance system and India from moving further into the Soviet system.

If the United States opts for a policy of cooperation and assistance, three levels of activity are possible:

- General cooperation and assistance not involving nuclear weapons,
- Technical cooperation and assistance to the nonnuclear facets of nuclear weapons, or
- Technical cooperation and assistance regarding the nuclear facets of nuclear weapons programs.

In conclusion, three basic implications for U.S. defense planning become evident:

- Should the United States be confronted with the necessity of choosing between preventing adverse power shifts in the Asian-Pacific region involving Japan and India and preventing those two nations from acquiring nuclear weapons, it is far more important to achieve the former than the latter.
- Should the next five to ten years prove to be a period which witnesses a relocation in the deployment of U.S. forces coupled with a continued surge in Soviet strategic and conventional buildup resulting in the global nuclear deterrent of the United States declining relative to that of the USSR, then the development of nuclear weapons by a Japan or India which remained close to the United States and not the USSR or China could be stabilizing in a worldwide context.
- Japanese or Indian development of nuclear weapons may increase the possibility of nuclear accidents, unauthorized behavior, and pilferage of nuclear weapons or fissile material. The possibility of unauthorized use of nuclear weapons may also increase. Such eventualities could be reduced by U.S. provision of hardware safeguards and related administrative procedures.

#### ABSTRACT

This study identifies and analyzes the possible regional and worldwide effects of Japanese and Indian acquisition of nuclear weapons. It analyzes the possible motivations for Indian or Japanese nuclear forces and evaluates alternative U.S. response options before and after commitment to nuclear weapons development; and it sets forth the general implications for U.S. defense planning should either one or both nations develop nuclear weapons.

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The views and conclusions contained in this document are those of the authors and should not be interpreted as necessarily representing the official policies, either expressed or implied, of the Defense Advanced Research Projects Agency or the U.S. Government.

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# CONTENTS

|   |     |
|---|-----|
| ABSTRACT . . . . .  | iii |
| FOREWORD . . . . .  | vi  |
| I INTRODUCTION . . . . .  | 1   |
| II U.S. INTERESTS AND OBJECTIVES IN THE ASIAN-PACIFIC THEATER. . . . .                        | 5   |
| A. Flexibility under Uncertainty through Retention of Options . . . . .                       | 7   |
| B. Specific Considerations . . . . .  | 7   |
| C. Nuclear Policy . . . . .   | 10  |
| D. India and Japan as Nth Powers . . . . .  | 11  |
| E. Proliferation . . . . .  | 13  |
| III FACTORS BEARING ON THE ACQUISITION OF NUCLEAR WEAPONS BY INDIA AND JAPAN . . . . .        | 15  |
| A. India . . . . .  | 15  |
| 1. Political Incentives . . . . .   | 17  |
| 2. Military Incentives . . . . .  | 20  |
| 3. Disincentives . . . . .  | 22  |
| 4. Scientific Base for Nuclear Weapons Development . . . . .                                  | 24  |
| 5. Purpose of Nuclear Weapons . . . . .   | 28  |
| B. Japan . . . . .  | 31  |
| 1. Incentives . . . . .   | 32  |
| 2. Disincentives . . . . .  | 35  |
| 3. Scientific Base for Nuclear Weapons Development . . . . .                                  | 37  |
| 4. Possible Weapons Systems. . . . .  | 40  |
| C. Opportunities for Cooperative Nuclear Programs . . . . .                                   | 42  |
| IV THE EFFECTS OF A NEW NUCLEAR POWER . . . . .   | 44  |
| A. United States Interests and India . . . . .  | 44  |
| B. United States Interests and Japan . . . . .  | 46  |
| C. The People's Republic of China and the Soviet Union . . . . .                              | 47  |
| D. The Asian Region . . . . .   | 51  |
| V U.S. OPTIONS RELATING TO THE ACQUISITION OF NUCLEAR WEAPONS BY INDIA AND/OR JAPAN . . . . . | 54  |
| A. U.S. Alternatives Prior to Commitment . . . . .  | 54  |
| 1. Increased Nonnuclear Military and Technical Assistance . . . . .                           | 54  |



U.S. OPTIONS RELATING TO THE ACQUISITION OF NUCLEAR WEAPONS BY  
INDIA AND/OR JAPAN (Continued)

|    |  |    |
|----|--|----|
| 2. | More Explicit Nuclear Guarantee . . . . .  | 57 |
| 3. | Political and Diplomatic Support and Pressure . . . . .  | 58 |
| 4. | Economic Incentives . . . . .  | 59 |
| 5. | U.S. Nuclear Weapons . . . . .   |    |
| B. | U.S. Alternatives after Commitment to a Weapons Program. . . . .   | 60 |
| 1. | Dissuasion or Obstruction . . . . .  | 60 |
| 2. | Acceptance . . . . .   | 60 |
| 3. | Cooperation and Assistance . . . . .   | 60 |
| VI | IMPLICATIONS FOR UNITED STATES DEFENSE PLANNING . . . . .  | 69 |
| A. | General Implications for U.S. Defense Planning . . . . .   | 69 |
| B. | Specific Implications for Major Power Relations<br>in Pacific Asia . . . . .   | 70 |
| 1. | Implications of Proliferation for Indian-Soviet<br>Relations . . . . .   | 70 |
| 2. | Implications of Proliferation for Indian-Chinese<br>Relations . . . . .  | 71 |
| 3. | Implications of Proliferation for Japanese-Soviet<br>Relations . . . . .   | 71 |
| 4. | Implications of Proliferation for Japanese-Chinese<br>Relations . . . . .  | 71 |
| 5. | Implications of Proliferation for Indian Relations<br>with Lesser Asian States . . . . .                               | 72 |
| 6. | Implications of Proliferation for Japanese<br>Relations with Lesser Asian Nations . . . . .                            | 73 |
| 7. | Implications of Proliferation by India and Japan<br>upon Each Other . . . . .  | 73 |
| 8. | Direct Implications of Proliferation by India<br>for the United States . . . . .                                       | 74 |
| 9. | Direct Implications of Proliferation by Japan<br>for the United States . . . . .                                       | 75 |
| C. | Three Major Questions Raised for U.S. Defense Interests<br>by Possible Indian-Japanese Nuclear Proliferation . . . . . | 75 |

## FOREWORD

The stability of the contemporary international system, especially the relations among the superpowers and their mutual allies, is dependent on the achievement of some form of stable relationship in military, particularly nuclear, power. The question of nuclear weapons proliferation is thus a central issue in international politics. It has direct implications for U.S. policies on strategic, tactical nuclear and general purpose force procurement as well as for U.S. policy in SALT and on a host of other foreign policy questions. This report addresses the problem of Indian and/or Japanese nuclear weapons acquisition.

This study was performed as part of the continuing research of the Strategic Studies Center on the problem of nuclear proliferation. This program has included studies of the technical capabilities of potential nuclear powers, the international security implications of nuclear proliferation, an assessment of the threat of unconventional nuclear delivery for U.S. security, and the implications of Chinese Communist nuclear capability for U.S. and Asian security.

The detailed research upon which this Summary report draws is contained in two separate volumes; one "Input Substudies A through E: Implications of Indian and/or Japanese Nuclear Proliferation for U.S. Defense Policy Planning" UNCLASSIFIED and "Input Substudy F: Implications of Indian and/or Japanese Nuclear Proliferation for U.S. Defense Policy Planning" (U), SECRET RESTRICTED DATA, CNWDI.

The study was conducted under the direction of M. Mark Earle, Jr. The research was conducted by R. M. Lawrence, W. R. Van Cleave and S. E. Young with the assistance of F. K. Means, H. W. Rood, Y. L. Wu, W. L. Daugherty, H. P. Jones and M. B. Schneider.

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## I INTRODUCTION

Some 16 nations have civilian nuclear programs adequate to qualify them as possible candidates for nuclear weapons programs. Among these nations are Japan, with an advanced power program, and India, with a less advanced but nevertheless impressive civil nuclear establishment. The acquisition of nuclear weapons by either one or both of them would be expected to create new international conditions and relationships and alter the strategic considerations and military policies of the major powers in Asia. The Nixon Doctrine, which envisages a greater role for U.S. allies in defending themselves, the latent and actual conflicts in Asia and elsewhere, the growing influence of the Soviet Union throughout the world, and the continuing increase in Chinese power all create conditions that may encourage India and Japan in the direction of nuclear weapons acquisition.

In the past, whenever a new nation has acquired nuclear weapons, certain politically and strategically important changes have occurred in international relations. Each new emergence of a nuclear weapons state has altered relationships in the international community, imposed new conditions, exposed different problems in respect to alliances, concepts of national interest, and strategy, and forced a reassessment of relative power among the nuclear weapons states. For example, the Soviet Union's acquisition of nuclear weapons, by destroying the American nuclear monopoly, increased the risk to the Western Alliance if it were to defend against Soviet incursions beyond the frontiers established at the end of World War II. France's acquisition of strategic nuclear forces has placed that nation in a position to deal, as a very modest nuclear weapons power, with the Soviet Union while permitting it greater latitude in its relations with NATO and particularly the U.S. The development of nuclear weapons by the People's Republic of China has increased the seriousness of the Sino-Soviet split while at the same time posing a potential nuclear threat to the U.S. It has further enabled Peking to utilize its nuclear weapons possession for exerting influence over the countries on its periphery and has forced those countries to exercise greater caution in resisting the extension of Chinese influence.

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Neither the effects of nuclear proliferation nor U.S. interests in such an event can be separated from the conditions that existed prior to the proliferation. The circumstances that move a nation to equip itself with nuclear weapons may have already affected U.S. interests and relations with that power and in that region prior to the nuclear proliferation. These circumstances, which may be sharpened or ameliorated but not basically altered by the acquisition of nuclear weapons, must be taken into account. If the U.S. interests, policies, and relations with the Nth country fundamentally change as a result of that nation's going nuclear, there should be clear, specific reasons for the change. The proposition that international relationships will change dramatically solely because a nation acquires nuclear weapons must be reexamined for national policy formulation.

The consequences of the emergence of a new nuclear weapons state are likely to be many and varied, and predictions of the effects these consequences will have for U.S. interests are bound to be tenuous. Much will inevitably depend upon which state goes nuclear, for what purposes, what types of weapons it will seek to develop, how it will alter its relations with other nations as it develops these weapons, and how other nations will react to the development. Despite repeated statements by U.S. officials over the past years that any increase in the number of states possessing nuclear weapons would be detrimental to U.S. interests and to world stability, neither U.S. interests nor international stability would be so clearly and inexorably disrupted by any new military nuclear effort. To the contrary, there seems no intrinsic reason to conclude, a priori, that any new national nuclear weapons effort would necessarily be destabilizing and contrary to U.S. security or political interests. Each case must be evaluated separately. It is not inconceivable that the emergence of a new nuclear weapons power would advance, or at least be compatible with, U.S. interests. This would be particularly true should the presence of the new nuclear weapons state dampen any aggressive tendencies of the Soviet Union or the People's Republic of China (PRC) and should the new weapons systems be equipped with effective safeguards against accidental or unauthorized detonations.

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It is in this light that U.S. interests and policy options, in the event that India or Japan elects to equip its military forces with nuclear weapons, should be considered.

Major U.S. interests and objectives in Asia are summarized in Section II. With the exception of the general U.S. interest in the nonproliferation of national nuclear forces, all of these interests and objectives presumably would continue to obtain in the event of a Japanese or Indian decision to acquire nuclear weapons. In particular, the interest in preventing the development of an unfavorable balance of power in Asia in which the new nuclear weapons state would be solidly aligned with Moscow or Peking against the U.S., would remain constant. The study indicates that the interest in nonproliferation is subordinate to most of the other interests and in large measure has constituted an instrumental objective, i.e., one believed to promote other interests. A U.S. nonproliferation policy must not be inconsistent with policies or actions supporting other interests. Two things are clear: some U.S. policies and actions have been potentially proliferatory when other interests dictated; and a nonproliferation policy is less, if at all, relevant vis-à-vis a particular power once that power has demonstrated its intention and capability to develop nuclear forces--as even U.S. atomic energy legislation recognizes.

The major questions in considering U.S. policy options for the contingency of a Japanese or Indian nuclear force are whether such developments would be, or need be, inconsistent with those more fundamental interests, or whether such developments would be consistent with the most important of these interests, and what influence alternative U.S. policies and actions would have on determining the outcome.

For both Japan and India, internal development of nuclear energy for civilian purposes is making a decision to acquire nuclear weapons technically and industrially more feasible as time passes.

India has developed a relatively sophisticated program for the use of nuclear energy to generate electricity and for application in science and technology. It has done so as part of a large-scale effort at industrialization. The availability of uranium and thorium ores, the strong commitment to the development of nuclear technology, the military

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pressures on India as a consequence of its position vis-à-vis China and Pakistan, and the apparently strong public sentiment in India favoring nuclear weapons combine to render India a likely Nth country. India's geographic location in a critical strategic area and its special relationship with the Soviet Union heighten the potential impact of Indian nuclear weapons acquisition, making it likely that Indian proliferation would have worldwide as well as regional effects.

Because of the demands of Japanese industrial expansion and modernization and the shortage of fossil fuels within the home islands, Japan has developed an extensive nuclear program aimed at exploiting nuclear energy for the generation of electricity. The level and sophistication of that program, plus the advanced state of Japanese technology and industry, place Japan in a position to acquire nuclear weapons with a minimum of additional effort. The history, politics, and economic capability of Japan, together with its peculiar strategic position with respect to the Soviet Union, China, and the United States, could result in highly important regional and global political changes should Japan acquire nuclear weapons--even more so than in the event of India's acquisition.

The emergence of a new nuclear power in an area as crucial as the Western Pacific or the Indian Ocean constitutes a problem in terms of regional and global relationships, and certainly in terms of U.S. policy. The emergence of both Japan and India as nuclear powers could compound the problem. The purpose of this project is to identify and analyze the possible regional and worldwide effects of Japanese and Indian acquisition of nuclear weapons and ascertain U.S. options in the event of such acquisition in order to permit an assessment of implications bearing on U.S. RDT&E and defense planning. Thus, Section II contains an analysis of U.S. interests and objectives in the far East. In the following Section, the specific problem of nuclear proliferation by India and Japan is addressed; incentives, disincentives, constraints, purposes, and weapons options are presented. The probable regional and global effects of Japanese or Indian proliferation are postulated in Section IV. U.S. options in the face of such proliferation are presented in Section V and evaluated in terms of U.S. interests and commitments. The concluding section, Section VI, sets forth the implications of the research findings for U.S. defense policy planning.

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## II U.S. INTERESTS AND OBJECTIVES IN THE ASIAN-PACIFIC THEATER

The implications of nuclear proliferation by Japan and/or India and their effect on U.S. security must be examined in the light of this country's overall interests and objectives in the Asian-Pacific theater. In order to define U.S. interests and objectives in a particular region, it is important to bear in mind:

1. That regional interests are necessarily derived from national interests and
2. That, for the foreseeable future, U.S. national interests must be conceived in the context of a multipolar world.

Therefore, from the point of view of this country's worldwide defense requirements, it is necessary that defense policies and arrangements in the Asian-Pacific theater not produce either a direct threat to the United States or an indirect threat by worsening the U.S. position outside the region. More specifically, what this means for U.S. defense interests must be examined in the light of considerations of power balance both within the region and in the world as a whole.

In a bipolar world of only two superpowers whose allies, as well as the nonaligned nations, are militarily insignificant, defining the security requirements for one of the superpowers vis-à-vis the other presents relatively little difficulty. Assuming hostility between the two superpowers, as a first alternative one could plan, as the U.S. once did but does no longer, to achieve deterrence through overall superiority, plus superiority in every region. As a second alternative, one could plan, as the U.S. now does, for stalemate with the major adversary at the direct strategic nuclear level plus superiority, or at least "adequacy," in those regions that are deemed more threatened and/or more vital, coupled with high mobility of forces in order to meet contingencies in other regions where no regional superiority exists. (When defense planners spoke of U.S. capability to wage, without total mobilization, "2-1/2 wars" and then, in more recent

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years, "1-1/2 wars," there was in effect a shift from the first to the second alternative.)

Once bipolarity gives way to multipolarity, a basic condition has changed. There are now more than two military power centers even though, for the time being, there still are only two superpowers. In addition, some of the allies on one side or the other, as well as other "third" countries, are no longer "military pygmies"; their relative capabilities are changing, although there is uncertainty about both the ultimate end and the speed of rearmament on the part of some of them. Since there is not a static set of power relationships among the major powers and the superpowers, it is possible to envisage shifting alliances and realignments of erstwhile neutrals that could lead to power balances in which the United States will find itself inferior to its adversary or adversaries of the moment.<sup>1/</sup> In the Asian-Pacific theater, such a threat to U.S. security could arise as a result of a "shrinkage" of the existing U.S. alliance system and a concomitant expansion of the power of the Soviet Union, still the most likely adversary of the United States as of the present time. The threat could also arise through the realignment of countries that are at present neutral or the emergence of new serious adversaries (e.g., the PRC).

It is clear, under these conditions, that while "to be second to none" in military strength is a necessary basic defense objective, it may not be sufficient. Parity with USSR at the strategic level or a small margin of superiority in certain regional contexts can be upset given the possibility of unfavorable shifts from the current state of power balance. One must, therefore, include among U.S. security interests the requirement that unfavorable changes in the power balance, both overall and within the region, must be prevented. Conversely, potentially favorable changes that would reinforce stability in the current power balance or even improve upon it would be desirable and, therefore, should be encouraged, assuming no attendant liabilities of disproportionate weight.

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<sup>1/</sup> Of course, shifts could go the other way, resulting in the Soviet Union's finding itself in a distinctly inferior position.

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### A. Flexibility under Uncertainty through Retention of Options

The United States maintains that it will extend its military protection against external, especially nuclear, threats to countries whose security is deemed essential to U.S. vital interests. That policy, of course, leaves open the question of which countries' security will be deemed vital to the U.S. at a particular time and with regard to the particular threat. If the threat were directed against countries on the other side of the Pacific, now that strategic parity with the Soviet Union has been publicly acknowledged, and now that the U.S. has rejected urban defense against the PRC threat, what military protection would the U.S. provide?

The Nixon Doctrine may be viewed as a U.S. attempt to find a new stable equilibrium in the world's power balance, including balance in the Asian-Pacific theater, which will require a U.S. defense effort that can be sustained by national consensus.

However, by including the national consensus, or what is politically feasible, as a parameter, the degree of uncertainty is necessarily enhanced for defense planners, because one cannot foretell what the national consensus will support. Translated into defense arrangements and force deployment, this means that neither the level nor the specific force mix and its disposition can be planned with as much definiteness as may be desired. Because of this consideration one must include among U.S. security interests a second, new requirement, namely, the retention of flexibility without undermining the credibility of arrangements and commitments as of any given moment. This requirement implies that the United States must maintain positions with regard to deployment, access, and relationships to its present allies and neutrals that would not foreclose future options but could even expand these options if favorable developments should occur.

### B. Specific Considerations

We are now in a position to define some of the specific U.S. interests and defense requirements in the Asian-Pacific theater.

First, in order to promote favorable developments in the current balance of power in the region under the assumption that, as of this time,

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the most important potential adversary is the Soviet Union and that, some time in the future, the PRC may also become a serious adversary, we need to:

1. Encourage Japan to assume a greater burden for assuring regional security and stability, and maintain cooperation and coordination of defense efforts with Japan;
2. Support efforts at self-defense and promotion of economic health and social-political stability on the part of allies and other nations not in the Soviet or Chinese camp;
3. Promote regional security arrangements for defense purposes by other nations and contribute at least material and technical aid to them where such aid is desired (this applies to all of East and Southeast Asia);
4. In South Asia, foster good relations with India and Bangla Desh while maintaining an attitude of helpful concern toward Pakistan.

Second, in order to prevent an unfavorable shift of alignment in the region, the United States needs to:

1. Maintain the credibility of present U.S. commitments in the region and eschew unilateral denunciations of such commitments without prior consultation and negotiation with the parties concerned (Vietnamization as a gradual process is a good example);
2. Prevent coercion by a nuclear armed PRC and/or Soviet Union of nonnuclear allies and nations whose survival as independent entities is deemed vital to U.S. interests as of any given moment, subject to periodic reassessment of U.S. interest; and
3. Insure that present or future security arrangements will not come under the domination of the USSR and/or the PRC, or include one or both of them to the exclusion of the United States, or, in the long run, be dominated by an unfriendly rearmed Japan.

Third, the United States must recognize that the above efforts notwithstanding, other nations may come to regard the U.S. military presence and defense policy in the region as inadequate for their own security. They may, accordingly, take measures or realign themselves in a manner

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that would be inimical to the U.S. position. Consequently, the United States needs to be prepared so that if such developments occur, they can do so only with great difficulty and at a potentially serious cost to the nations concerned. These steps include:

1. The maintenance of a nonmilitary interface with India in regard to agricultural assistance and technology transfer which would provide significant leverage against India should New Delhi appear to be moving far beyond the current relationship with the USSR to a position of active alignment with Moscow in opposition to U.S. interests; and
2. The maintenance of nonmilitary relationships and a degree of military presence in areas that would give the United States strong leverage against Japan in the event that Tokyo should seem to be contemplating realignment with the Soviet Union and/or the PRC. The most vital areas, where American economic and military presence could be seen in a quid pro quo basis as necessary by Japan, include countries astride Japan's oil lifeline which extends 7,000 miles from the Persian Gulf across the Indian Ocean, to include Indonesia, through the Straits of Malacca to the Philippines, Taiwan, and on along the Ryukyu Islands to Japan. These areas must also be denied to the Soviet Union and the PRC so that they, in turn, cannot exercise leverage against Japan in the form of preserving or cutting the oil lifeline.

Fourth, the United States must understand that despite its efforts, other nations in the Asia-Pacific theater may develop the view that American military presence and policy is not sufficient to ensure their own security. Thus, those nations with the technical capability, most notably Japan and, to a lesser extent, India, may develop additional military capacity, including nuclear weapons, to enhance their security. In such a context, nuclear weapons possessed by Japan and India would not represent a direct threat to the U.S., except in the sense that more nuclear weapons increase the mathematical chances of accidents which could then escalate into unforeseen consequences. Instead, acquisition of nuclear weapons by Japan and India in order to strengthen the two nations' security

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vis-a-vis the Soviet Union and/or the PRC, could contribute to an increasingly stable power balance in the Asian-Pacific region. In such a context, U.S. interests previously mentioned could be advanced, particularly if the new nuclear states accompanied the nuclear weapons acquisition with correlative development of technical and political safeguards against their accidental use.

Fifth, in order to maintain strong options and to enhance present U.S. credibility, the United States needs to:

1. Insure future access to the region's supply of materials that are important for U.S. security and nondefense interests, and
2. Insure future military access by sea and air to the region, insuring, in particular, that the Indian Ocean does not come under the domination of any country potentially hostile to U.S. interests.

In order to attain the objectives under this point, the United States must maintain a credible military presence in the post-Vietnam period. Since the number of U.S. forces and bases is likely to be substantially reduced in the Asian-Pacific theater, not only in Indochina but also in Korea, Japan, Taiwan, and the Philippines, a combination of highly mobile forces, where possible, in conjunction with local allied forces, needs to be maintained in the remaining bases at certain locations that are also essential under the preceding points.

Sixth, given uncertainty, U.S. interests can be safeguarded in a multipolar world with its potentially shifting alignments only if the perception of danger and response to it are prompt. This requires the maintenance of an adequate intelligence collection and analysis capability throughout the region.

### C. Nuclear Policy

Given the present mutual strategic deterrence between the United States and the Soviet Union, a special application of the above interpretation of U.S. interests is the prevention of any deterioration of this

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nuclear balance through realignments (e.g., a rapprochement between the PRC and the Soviet Union) and/or the emergence of potentially hostile new nuclear powers. At the same time, the United States must examine the possibility of military options below the strategic level so that it will not have to shift to increased reliance on its strategic nuclear forces for deterrence and defense in local conflicts.

The United States, therefore, should support nonproliferation of nuclear weapons in the Asian-Pacific theater to the extent that such policy is compatible with, and advances, the U.S. interests described above. However, to the extent that proliferation nonetheless occurs, the United States must be flexible in its response. In doing so, it should attempt to insure that: a) the consequences of proliferation be as consistent as possible with the above interests, b) nuclear use doctrine be understood by the new possessors of nuclear weapons, and c) adequate safeguards against nuclear accidents be present in the embryonic nuclear force structures.

Thus, to the important question, "Will proliferation occur in the Asian-Pacific theater" is being added the equally important question, "Will proliferation occur in the Asian-Pacific theater in a way that will alter the power balance leading to U.S. inferiority or enhance the balance and thus contribute to political stability among the super- and near superpowers."

### D. India and Japan as Nth Powers

The U.S. should have an interest in (or at least not find contrary to its interests) the development of effective, friendly, stabilizing powers countervailing both the power of the USSR and China and the unsettling effects of ambitious, destabilizing movements in South Asia. Assuming therefore, that Japan and India are potentially countervailing forces for stability, or at least that their own political-territorial-economic designs are not at the expense of major U.S. interests, their development as effective regional political-military powers should be in the interests of the U.S.--as long as this development does not come in alignment with, or under the heavy influence of the Soviet Union or China, or worse yet, a



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Peking-Moscow axis and provided adequate safeguards are associated with the new nuclear weapons. Such military development by India and Japan, or either, need not run counter to U.S. interests and more likely, if handled corrently, should contribute to regional security vis-a-vis the Soviet Union and China.

The effect on U.S. interests and objectives in Asia or either Japan or India going nuclear depends upon whether such event a) hinders, enhances, or has any significant effect on the maintenance or construction of a stable, favorable balance of power in Asia, or b) occurs at the expense of good American-Japanese or American-Indian relations.

It is assumed that Indian weapons will pose no direct threat to the U.S. due to range constraints, as well as political considerations, and that if Japanese weapons have that capability they will not be considered a threat to U.S. national security, any more than British or French SLBMs are considered a threat.

Following this line of reasoning, the question of nuclear forces for India and/or Japan can be put into a somewhat different persepective than the traditional view that such developments are inherently dangerous for the U.S. In such event, the overriding U.S. interests should be to encourage, especially in the case of Japan, cooperation and coordination of nuclear deterrence and security forces, attempt to channel weapons development along mutually constructive lines, and assure that such nuclear weapons acquisition (by Japan or India) will not lead to a break or estrangement in relations with the U.S., accompanied by formation of closer ties with the USSR or PRC.

What is suggested is that, while there may be ways for the U.S. to influence an Indian or Japanese decision against national nuclear weapons, the U.S. will not determine the matter. The governments of India and Japan have demonstrated that a decision to go nuclear will not be taken

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unless compelling political and security interests dictate.<sup>1/</sup> If that decision is taken, and if it is not taken in the context of deteriorating relations with the U.S., American interests may well include working with and trying to shape the nuclear development and planning that does take place. Whether or not that includes U.S. technical assistance is an open matter, discussed below, but the U.S. would undoubtedly wish to have some influence on Indian or Japanese nuclear planning and development. A certain dependence upon the U.S. may also be beneficial in the context of nuclear weapons acquisition, not only to the extent that it excludes dependence upon the USSR, but also because it may provide a source of influence or leverage in future contingencies.

### E. Proliferation

One question, basically unanswerable, that involves U.S. interests concerning an Indian or Japanese nuclear weapons effort, is whether such a development would promote further nuclear proliferation. While the "Nth country" problem can, and should, be addressed in terms of the specific country and its capabilities and purposes, the concept of proliferation involves the specter of a wider spread of national nuclear weapons programs that would raise more uncertainty as to implications for U.S. interests.

The immediate question is whether there is "linkage" between a decision by India or Japan to go nuclear and the decision of the other, or, beyond Asia, between India, Japan, and any other presently nonnuclear weapons state. In the past, some governments--e.g., that of Sweden--have publicly made their nonnuclear status conditional in some way on continued nonproliferation. Although for most of these--as in Sweden's case--such statements can largely be discounted, others, which might be taken more seriously, have made similar statements with clear reference to specific Nth countries rather than to such a general condition.

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<sup>1/</sup> There have been technological constraints on such decisions to date, which may make this proposition somewhat questionable. But the study of the two countries' motivations and inhibitions, summarized above, supports this general conclusion. What is not yet clear, however, is whether, at a certain stage of development, compelling technological factors will lead to rationalization in terms of political or security interests, or override them altogether.

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That problem has been considered and examined to the extent feasible within the scope of the study, drawing on past SRI work on potential Nth countries. In all cases, for the dozen or so countries studied, at least up to a conceivable point where nuclear weapons had become common national possessions, more compelling reasons than simply the emergence of a new nuclear weapons state which is not a threat to the Nth nation will govern nuclear weapons acquisition decisions. It clearly matters which specific state gets nuclear weapons and how such acquisition directly affects a nation's interests. It is difficult, therefore, to link a Japanese or an Indian decision to acquire nuclear weapons--or even such a decision by both--to similar decisions (proliferation) outside the region, among states not directly involved.

As to linkage between India and Japan, neither explicitly makes its own policy on the matter conditional upon what the other does, as neither nation is regarded as a direct threat by the other. The considerations critical to a nuclear weapons decision by either country, summarized above, do not seem to include the question of whether the other does or does not go nuclear militarily. This is not to conclude that there is insensitivity to this matter in either government. (India would be more sensitive to Japan's going nuclear than vice versa.) But other factors govern, and the fact that the other had decided to acquire nuclear weapons would be more supporting rationalization than real reason for a decision to go nuclear (unless, of course, clear political benefits--e.g., a permanent seat in the U.N. and role in major power arms talks--resulted for the one that had gone nuclear, to the continued exclusion of the other).

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### III FACTORS BEARING ON THE ACQUISITION OF NUCLEAR WEAPONS BY INDIA AND JAPAN

If India or Japan perceived nuclear weapons to be imperative to the fulfillment of its envisaged national destiny, it will not hesitate to acquire nuclear weapons, whatever the difficulties that must be surmounted. The nation might do so in order to have the option to apply those weapons militarily or simply to force its way into the inner councils of the world's elite, to which nuclear weapons possession at present appears to provide the entree. But in either case, nuclear weapons will have been acquired in direct response to the nationalist drive toward assumption of the country's "rightful" place in the world and the protection or pursuit of its national interests. Failure to do so would mean national decline and acceptance of second rate status. A variety of reasons and arguments may--or will--be applied to rationalize the decision, but national power or survival will be the basic motivation.

Having established this perspective, it will be useful to examine the specific conditions obtaining in the countries under consideration in this paper, India and Japan.

#### A. India<sup>1/</sup>

Late in 1971, India defeated the Pakistani Army in East Bengal and crippled the Pakistani Navy in the west, aiding the secession of East Pakistan and the subsequent founding of Bangla Desh. Pakistan's superpower allies, the People's Republic of China (PRC) and the United States, failed to come to its aid. As a result, India emerged the dominant power in the South Asian subcontinent. Pakistan, unaided by China or the U.S., no longer is considered a threat which could require India to acquire a

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<sup>1/</sup> For background details, see Input Substudy B.

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nuclear arsenal. However, Pakistani ties with China and the U.S. still provide those powers an entree to the region. The very weakness of Pakistan and the policies that emanate from that weakness in conjunction with the Kashmir dispute indicate that Pakistan cannot be discounted entirely by Indian defense planners.

The decade-old hostility between India and China continues to loom large in New Delhi. India perceives the PRC as an expansionist state with designs on Indian territory as well as as a rival for influence in the Himalayas. The Indo-Soviet Treaty of Peace, Friendship, and Cooperation, concluded between Moscow and New Delhi in August 1971, served to highlight Indian hostility toward, and threat perception from, the People's Republic. Indian statements reveal that Indian nuclear weapons would have China as their primary target,<sup>1/</sup> although they might serve a multiplicity of other, partially nonmilitary, functions as well.

The Indian Ocean, which comprises some 3,500 miles of India's national borders, has been the subject of much discussion in the context of great power interests in recent years. During the Bangla Desh crisis, the U.S. brought pressure to bear on India by practicing what New Delhi viewed as gunboat diplomacy from the Indian Ocean with a task group led by the USS Enterprise. Indian sensitivities were aroused by this action, and criticism was leveled at the U.S. for what was considered an unwarranted display of power. Other Indian spokesmen lament the fact that the Indian Ocean is rapidly becoming a "Soviet Lake." Advocates of nuclear weapons for India maintain that were India to acquire a credible nuclear arsenal, it would no longer be subjected to "superpower interventionism," which it has consistently condemned. In the words of one Indian analyst, "...the future will bring thermonuclear weapons--the Enterprise has guaranteed that."<sup>2/</sup> By preventing intervention in the internal affairs of the region, it is pointed out, nuclear weapons would permit India to devote its energies to internal stabilization, unification, and economic progress.

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<sup>1/</sup> See, for example, Sampooran Singh, India and the Nuclear Bomb (New Delhi: S. Chand and Co., 1971).

<sup>2/</sup> R. Rikhye, "Why India Won: The 14-Day War," Armed Forces Journal, Vol. 109, No. 8, April 1972, p. 41.

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### 1. Political Incentives

In addition to deterring external interference in the internal affairs of the subcontinent, Indian nuclear weapons proponents claim that nuclear weapons possession could facilitate the realization of a variety of Indian political aspirations. With the accession of the PRC to a seat on the United Nations Security Council, that body became, in Indian eyes, another embodiment of the "nuclear club." China, they observe, was largely ignored until it developed nuclear weapons, and Peking's international prestige and influence have grown concomitantly with the credibility of its nuclear arsenal. It is Chinese nuclear weapons and no other factor which, in their view, has caused both the U.S. and the USSR to negotiate peacefully with their giant Asian rival.<sup>1/</sup> Thus, Indian analysts regard nuclear weapons as the entree to the inner circle of global decision-makers as epitomized by permanent membership in the U.N. Security Council.

India has long aspired to regional leadership. It is, however, aware of China's rival bid for this role. New Delhi is particularly concerned with maintaining, or asserting, its influence in the states along its borders (the Himalayan kingdoms, Burma, Sri Lanka, and Pakistan) and in preventing their possible alignment with Peking. In order to do so, India will need to display the ability to protect itself against possible challenges to the role it has chosen as well as to furnish a degree of security to its allies. The development of nuclear weapons is one obvious way to do this.

Many Indians feel that their country is treated with contempt by the superpowers.<sup>2/</sup> There is a growing acceptance of Western balance of power theories among the Indian elite. Spokesmen indicate increasing belief that equality in international affairs is a consequence of the possession of power--and its symbols--rather than the consequence of the articulation of virtue, that it is necessary for a nation to acquire

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<sup>1/</sup> K. Subrahmanyam, "The Role of Nuclear Weapons in International Relations," The Institute of Defense Studies and Analyses (New Delhi), Vol. 3, No. 1, July 1970, p. 5.

<sup>2/</sup> See, for example, Indira Gandhi, "India and the World," Foreign Affairs, Vol. 51, No. 1, October 1972, passim.

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those attributes which engender respect from others before it can make its influence felt. Nuclear weapons possession, to a growing number of Indian spokesmen, is the main criterion for great power status and the international participation which accrues from that rank.

Linked with the Indian perception of international unequal treatment is a feeling of national shortcoming. India's major economic, political, and developmental problems remain serious despite the significant progress made since independence. Thus, not only could an Indian nuclear weapon, the nonpareil of modernization, be the key to international prestige, but it could also yield impressive internal returns. The visible demonstration of such a technological achievement would be expected to enhance the status of the central government and thereby discourage the centrifugal tendencies evident in India today. Furthermore, as outside governments began to treat New Delhi with increased respect, the Indian citizenry would in all probability reflect this changed view in their own attitudes toward their government, and dissidence and unrest would hold less attraction. The government itself, too, would take considerable pride in its achievement and may become less sensitive to slights, real or imagined, from other nations, as they would no longer be interpreted in a nuclear/nonnuclear framework.

Indians are sensitive to the occasional references to the relative progress in modernization and industrialization made by the two Asian giants, China and India. It goes almost without saying that India, a nonaligned democracy, usually comes out a poor second in such comparisons by foreigners. The People's Republic is regarded as a great, if not a super, power, whereas India is termed economically and politically backward, hardly a "middle range power," although respect for India has grown since the invasion of East Pakistan in December 1971. Some Indians explain the prevalent attitude by claiming that other countries, particularly the United States, respect physical power in the hands of a totalitarian, or communist, state more than they do an unarmed state linked with democracy. One way to redress the invidious comparison, it is argued,<sup>1/</sup> is to develop an indigenous nuclear weapons capability.

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<sup>1/</sup> K. Subrahmanyam, op. cit.

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As a nuclear power, it is further contended, India would be in a position to exert greater influence on the course of arms control and disarmament negotiations, an area of longstanding Indian interest. As representatives of a nonaligned state which claims a tradition of non-violence, Indians consider themselves particularly well suited for the role of "nuclear peacemaker." However, to date, attempts by New Delhi to play this role have been frustrated. Some Indians trace this circumstance to the fact that India has bargained from a position of weakness rather than of strength--as a nonnuclear nation begging those who have nuclear weapons to renounce them. If India, too, had a credible nuclear arsenal but persisted in its efforts to effect the final elimination of nuclear weapons, perhaps, it is maintained, others would realize that New Delhi was in earnest and would therefore give serious consideration to its stand.

The above requirements for nuclear weapons acquisition could all be met, at least initially, by the development of "political nuclear weapons," i.e., by a demonstration of India's ability to assemble and detonate a plutonium device. (The term does not imply possession of a credible delivery system or a militarily significant nuclear force.) An obvious method of demonstrating for political purposes the ability to develop nuclear weapons would be an underground plowshare explosion, which would not violate the Partial Nuclear Test Ban Treaty, to which India is signatory. One of India's basic objections to the NPT was the limitations the Treaty places on development and use of peaceful applications of nuclear explosives by nonnuclear weapons states. Thus, subterranean detonation of a nuclear device would appear consistent with India's prior stand and its economic goals, while simultaneously and implicitly demonstrating its ability to go one step further and convert the same technology to military applications.

Such an ostensibly "peaceful" nuclear explosion would probably trigger the least possible political disapprobation, both domestically and abroad. An additional attraction of this method of signalling Indian ability to acquire nuclear weapons is the economy--and ease--of such a route relative to the expenditure which a military arsenal would require.

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On the other hand, a potential liability of this method of demonstrating a nuclear capability would be the possibility of misinterpretation leading to a conclusion that India does not possess the resources to develop a military nuclear capability.

Demonstration that India has reached a technical level from which it could easily develop a military nuclear arsenal could appear politically attractive. Serving the various purposes discussed above, it could constitute a form of implicit "nuclear blackmail." In other words, India might take the stance that if it is not treated with due respect and consideration, it will be forced to produce a credible nuclear arsenal to back its position. Conversely, New Delhi could let it be known that it would eschew military application of its nuclear technology if the Chinese threat were reduced, treatment by the super-powers improved, and various perceived international inequities alleviated.

### 2. Military Incentives

All of the purposes for India's developing what may be termed "political nuclear weapons" could also be met better by development of militarily useful nuclear weapons, i.e., an arsenal of nuclear devices backed by a credible delivery system. It should be noted at this point that the terms "political" and "military" nuclear weapons may, in fact, designate two sequential points on a continuum rather than denoting separate paths of development. In other words, a peaceful nuclear explosives program may develop a momentum of its own which would propel India willy-nilly toward military nuclear weapons.<sup>1/</sup> On the other hand, were India to develop a "political" weapon and that weapon failed to yield the anticipated rewards, Indian frustration might cause it to fulfill its implicit threat to acquire "military" nuclear weapons.

There are a number of basic Indian interests the realization

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<sup>1/</sup> See discussion of "Decision-Making, Parties, and Polls," Input Substudy B.

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of which could be furthered by the acquisition of "military," not "political," nuclear weapons.

The basic function which Indian "military" nuclear weapons could fulfill is that of denying tactical or strategic objectives to a hostile power should deterrence fail. Indian literature generally assigns the role of invader to China, but the same reasoning could apply to the case of any other nuclear power, e.g., the USSR or the U.S., or even a well equipped nonnuclear ally of the nuclear states which wished to invade India. (Indian military spokesmen, following the dismemberment of Pakistan in 1971, tend to discount that state as constituting a significant threat unless it were to come under PRC control.)

India may decide that it needs a nuclear arsenal as a hedge in a harsh and unstable world. The U.S. and, to a lesser extent, the USSR have indicated that signature to the NPT by a nonnuclear state constitutes the necessary condition for assistance from the superpowers should the nonnuclear signatory be subject to aggression by a nuclear weapons state. New Delhi, however, has expressed official reservations concerning the credibility of this tenuous guarantee,<sup>1/</sup> as such an agreement would involve the superpowers in nuclear warfare. Doubts about the continued interest of the U.S. and/or the USSR in honoring such commitments in the face of the growing Chinese nuclear capability have also been expressed.<sup>2/</sup> Most Indian statements<sup>3/</sup> imply, or state outright, that China would be the target of Indian nuclear weapons. However, there are indications that consideration is being given to their utility for reducing U.S. and Soviet influence in the region.

Finally, India is sensitive to what it considers "interventionism" in the subcontinent, of which there have been a number of instances. The

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<sup>1/</sup> M.D. Sondhi, "Notes and Memoranda on the Seminar on Nuclear Weapons and Foreign Policy," International Studies (India), October 1967, p. 154.

<sup>2/</sup> As quoted from Hindustan Times (New Delhi), 11 June 1970, in Singh, op. cit., p. 103.

<sup>3/</sup> See, for example, Subramaniam Swamy, "The Case for India Acquiring Nuclear Weapons," Los Angeles Times, 28 February 1973, Part II, p. 7.

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appearance of the USS Enterprise in the Bay of Bengal during the Bangla Desh crisis is the most recent, but the Sino-Indian War of 1962 remains fresh in Indian memories, as well. Were India capable of inflicting significant damage on an interventionist, it is argued, such powers would avoid military involvement with India and instead negotiate solutions to issues of conflict.<sup>1/</sup> Thus, Indian "military" nuclear weapons could serve as a deterrent force in a regional, but not global context.

Nuclear weapons may, in fact, eventually appear necessary to India to insure its independence as a nonaligned nation.<sup>2/</sup> New Delhi has long emphasized the advantages of self-reliance. Associated with this orientation is the notion that India must never become dependent on foreign assistance, which could give another country leverage over Indian policy. Thus, India is striving to remain free from dependence upon military guarantees from other nations and to attain self-sufficiency in weaponry, which it has had to import. Nuclear weapons may be viewed as granting India ultimate independence from foreign interference in any form.

### 3. Disincentives

Although there are strong reasons for India to develop either "political" or "military" nuclear weapons, there are also disincentives to following this course. Perhaps the most frequently articulated of these is the philosophical conflict which has arisen from consideration of the option. The roots of the conflict are to be found in the Gandhian tradition of nonviolence and its adaptation to foreign policy by former Prime Minister Jawaharlal Nehru. Those who take the traditional position believe that India's should be a virtuous, though not necessarily powerful, posture. However, it should be noted that India's invasion of East Pakistan did not cause undue outcry from the proponents of nonviolence, and it can be expected that the Indian government would find a way likewise to package acquisition of nuclear weapons to make it acceptable to this sector.

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<sup>1/</sup> Subrahmanyam, op. cit., p. 5.

<sup>2/</sup> Ibid.



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A second disincentive is the economic cost of a nuclear weapons program, particularly in terms of diversion of funds from other national efforts. This factor is difficult to evaluate. India has already indicated interest in developing nuclear explosives for peaceful exploitation of natural resources. In time such a program could contribute substantially to the nation's well being and thus pay for itself and mastery of fission technology which would be involved. Since India is already advanced toward non-military nuclear explosives the detonation of a "political" nuclear weapon in a plowshare context would not add greatly to the overall costs allocated for natural gas or water exploitation.

Even the cost of "military" nuclear weapons is subject to conjecture. The ever advancing state of Indian nuclear technology<sup>1/</sup> should reduce the actual costs of a nuclear weapons program. Cost estimates range from \$600 million for a small force of soft fission IRBMs<sup>2/</sup> on up. However, without knowledge of the exact situation in which India were to make a decision on nuclear weapons, figures are relatively meaningless. India might decide it could not afford to invest \$600 million in a nuclear force under low threat conditions but willingly undertake to develop a force at several times that figure if national survival appeared to depend on it. Thus, whether the financial cost of nuclear weapons serves as a constraint on their development cannot be accurately assessed prior to the context in which the decision is made.

Indian spokesmen, whether favoring or opposing their country's development of nuclear weapons, generally agree on the conditions necessary for greatly reduced interest in obtaining such weapons for India. First, the NPT must be revised. Alterations which may lessen Indian eagerness to develop a nuclear arsenal include insertion of a provision halting "vertical proliferation" and elimination of the discrimination between the nuclear weapons states and the nonnuclear weapons states regarding inspection of nuclear facilities and regulation of peaceful

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<sup>1/</sup> See Inpnt Substudies B and F.

<sup>2/</sup> Subramaniam Swamy, "Systems Analysis of Strategic Defense Needs," Economic and Political Weekly, 22 February 1969, pp. 401-409; see also, India's Nuclear Strategy in the 1970s, a paper delivered at the International Security Program Colloquium on Multipolar Strategy, University of California, Berkeley, 26 May 1969.

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exploitation of nuclear energy. Further, a real effort on the part of the nuclear weapons states to commence effective nuclear disarmament would also go a long way toward reducing Indian interest in this type of weaponry.

The second condition which would contribute to lessening Indian interest in nuclear weapons would be an improvement in the general treatment accorded India by other countries, particularly the superpowers, a reduction in outside interference in the affairs of the subcontinent, and decreased Soviet and American naval presence in the Indian Ocean.

Thirdly, a reduction in Sino-Indian tensions would alleviate the most immediate cause for Indian interest in the development of a nuclear arsenal.

Fourth, as long as no other country acquires nuclear weapons, India will be more hesitant to do so itself. (Conversely, if another country were to successfully raise its international prestige through nuclear weapons acquisition, India may be more eager to follow its lead.)

Finally, increased confidence in the achievements of the Indian government in general could decrease any need it might feel to prove to the populace the advances India has made in modernizing the country.

#### 4. Scientific Base for Nuclear Weapons Development<sup>1/</sup>

It appears that for both military and political reasons, New Delhi has chosen to adopt a flexible position toward nuclear weapons while strengthening its technological foundations so that if it should become necessary, a credible deployment could be accomplished. How India has done so requires a brief summary of current capabilities and future plans in the fields of civil nuclear power and space technology.

India's interest in atomic energy extends back to 1948 when Parliament passed an Atomic Energy Act. APSARA, India's original experimental reactor, produced its first chain reaction in August 1956. Since that time, two additional research reactors have been constructed: CIRUS

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<sup>1/</sup> For additional information, see Input Substudy F.

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(1960) and ZERLINA (1972). The latter, ZERLINA, is aimed at future fast breeder reactor development to exploit India's huge thorium reserves. Electrical power was first generated commercially by a nuclear power station at Tarapur in 1969. A twin 220 MWe station at Rana Pratap Lagar has subsequently come into operation, and another twin installation at Kalpakkam is scheduled to begin power distribution in the mid-1970s. With the exception of APSARA, all reactors currently in operation are covered by safeguard agreements; the new installation at Kalpakkam will be wholly an Indian endeavor and consequently not subject to safeguards. Fuel fabrication, plutonium separation, and the production of heavy water are all on-going operations with India.

The national goal for electrical power production of 2700 MWe by 1980 is unlikely to be achieved; the total will probably be around 1500 MWe by that date. Fast reactor, uranium enrichment, and fast breeder reactor (FBR) research is underway. Design and construction of a 500 MWe prototype FBR is expected in the early 1980s. In brief, the Indian effort has been modest but aggressive, emphasizing the objectives of self-sufficiency in the nuclear industry and development of technological support for a future nuclear power program rather than an immediate program of widespread nuclear power expansion.

Almost from the outset, Indian scientists and technicians have participated in the development of power reactors, fuel fabrication, isotope production, and other related endeavors. While the three initial power reactors and their fuel were imported from the U.S. and Canada, India has at every subsequent step injected national control. When the two CANDU reactors in Madras come into commercial power operations between 1975 and 1977, they are to be totally Indian, including, of course, the plutonium they produce. This power reactor (CANDU) type is readily adaptable to dual purpose operation to produce both electrical power and plutonium. Such dual purpose operation is also a characteristic of the research reactor CIRUS. This facility was built jointly by Canada and India but has been weaned from Canadian fuel inputs and inspection; thus, there is some question as to whether the plutonium production is safeguarded or not. For the last ten years, this modest reactor (40 Mw(t)) has been

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totally outside international supervision. Estimates of the cumulative plutonium production vary depending upon assumptions of operating mode. However, a reasonable estimate of potentially weapons grade plutonium produced by this reactor would be 40 kilograms.

The Indian insistence on developing autonomy has laid heavy stress upon the nation's industry to take on complex manufacturing tasks, even though the learning process has produced delays in the program plan. Thus, the present reactor program has suffered a delay of several years. Further, the "develop India" concept has, in some cases, resulted in development of marginal resources with resultant increased production costs. An example of this is the development of uranium reserves, which result in costs greater than the current world economic recoverable price of ten dollars per pound. In other cases, the policy has demanded that India take the initiative in plutonium and thorium fuel technology. On this latter point India views thorium as an eventual replacement for the otherwise short supply of indigenous uranium. Thorium is a fertile material, which can be converted to a fissionable isotope of uranium when irradiated in reactors. The extensive reserves of thorium in India favor the eventual exploitation of this material in breeder and advanced converter reactors, a program which, according to the Indian timetable, will start to develop during the 1980-1985 period.

A set of resources capable of generating a nuclear device exists in India today. The reactor and fuel fabrication and processing technologies are available. A small production capacity for weapons grade plutonium free of international inspection is present, and stockpiling of plutonium for advanced fuel and reactor designs is public knowledge. Lastly, the Indian AEC has sufficient competence to technically support the possible future development of a "peaceful" application of nuclear explosives.

India could possibly demonstrate a fission explosion in the next year and could have a small operational stockpile for aircraft delivery by 1977. If such an explosion were to take place, it is likely that it would be conducted underground and that it would be announced as an experiment in the use of nuclear explosions for peaceful purposes.

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However, since the Indian nuclear development program is vulnerable to delays, a more realistical estimate places an operational fission weapon available by 1979 for a stockpile build-up to about 60 weapons. Principal supply of plutonium would come from the Madras CANDU type reactors. After 1980, a general development of weapon design could result in more advanced fission weapons on the order of one hundred or more. A stockpile of this size can be developed without violation of prior safeguard agreements. A more detailed analysis of the impact on the general economic growth generated by diversion of limited critical material assets would nevertheless be useful. This competition for fissile material is important, since India is so deficient in developed electrical generation capacity that diversion of plutonium from future reactor use or generation of increased demands for natural uranium, either domestic or from abroad, could cause increased delays and costs to power, and hence the economic growth of the nation.

If the decision to develop nuclear weapons is delayed until the late 1970s, the pattern for development would not change significantly. The risk of delays in the development program probably would be reduced because of the generally higher level of competence that would be expected to exist at that time. The critical material availability would not change significantly. The required inventory of fissile material for breeder reactors is substantial, representing several years of plutonium production from CANDU reactors. Estimates indicate that by the early 1980s, diversion of plutonium or uranium-233 from the nuclear power program could be made in modest amounts, with probably little adverse effect on the expansion of the power program. In the late 1980s, India could have a nuclear warhead stockpile of several hundred fission weapons if she chose to do so. From an economic point of view, thermonuclear weapons do not appear to offer any significant improvement in end results and, as with the French, could represent a major development program and expense.

Progress in the space program, where support for an IRBM system would originate, has hardly been spectacular, but plans for the future are ambitious. Most of India's effort to date has been with sounding rockets--a three-stage version was launched in 1964--but an Indian made

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satellite may be launched by the Soviet Union within the next year or so. Most conspicuous of the official program objectives 1970-1980 are the following:

- Completion of a rocket fabrication facility for the manufacture of large size rocket casings and hardware for rocket motors,
- Development of an inertial guidance system,
- Development of the capability to put a 50 kg satellite into orbit this year or next,
- Development of an advanced rocket system to put 1200 kg payloads into synchronous orbit, and
- Development of remote sensing devices.

New Delhi has been consistent in striving toward autonomy in all three areas: civil nuclear capabilities, military weapons, and space research. Consequently, a position has been attained from which India could proceed on its own in all three areas if need be. Results to date, which could be called "modest" on an absolute scale, look relatively impressive when the size of India's economy, its paucity of raw materials, and its demographic problems are considered.

### 5. Purpose of Nuclear Weapons

Estimates concerning the kinds of nuclear weapons which India would be most likely to consider for its various purposes, should the nuclear option be invoked, may be extrapolated from Indian writings and the situation as an American strategist might visualize it. In regard to the first method, it should be borne in mind that the Indians are vague as to what they might require.<sup>1/</sup>

Judging from the Indian writing on the subject, there appear to be two basic military purposes for which nuclear weapons might be acquired: tactical use in defending Indian territory from Chinese attack and strategic use to deter Chinese nuclear blackmail or attack upon Indian population centers. Regarding the first purpose Subrahmanyam notes:

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<sup>1/</sup> K. Subrahmanyam, "India," an unpublished paper, May 1973, p. 50, noted this vagueness.

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There has been some mention of nuclear land mines and tactical nuclear bombs for aircraft delivery in support of ground forces. Such equipment is generally mentioned in connection with efforts to guard the Himalayan passes against Chinese assault.<sup>1/</sup>

On the basis of the morale and equipment/training of the Indian Army, it does not seem likely that a strong case can be made in India now for acquiring nuclear weapons solely by arguing that the Army would need them to withstand a conventional Chinese attack. This perspective could change if and when the Chinese demonstrate a tactical nuclear capability which would be linked with the threats along the northern border. Then, presumably, the conventional Indian Army, good as it is, would be no match for Chinese forces ready to employ tactical nuclear weapons.

To the general purpose of defending the Himalayan border against the Chinese, an American perspective would add two points: (1) the weakening of the coercive potential possessed by China should India fail to acquire the deterrent defense capabilities for use in the Himalayan region and (2) the discouragement of Chinese troop massings in large concentrations along the border, either in preparation for invasion or to intimidate New Delhi in order to bring pressure upon the Indian government regarding some matter in dispute between China and India.

Although the Indians have not been very specific about the exact types of weapons which would be useful in defending the northern border against Chinese attack, the American assessment of the requirements would yield the following weapons requirements.

- Aircraft-deliverable fission bombs in the kt and tens of kt range.
- ASMs with fission war heads and short range ground-fired rockets with fission warheads (obviously the degree of sophistication needed to produce such warheads vis-à-vis aircraft bombs would be greater).
- ADMs, possibly delivered from aircraft in the form of earth penetrators.
- Radiological barriers (this is largely an "unconventional" nuclear weapon which has received some attention recently<sup>2/</sup>).

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1/ Ibid.

2/ R. Van Cleave, "Some Nuclear Implications of the New Doctrine for Asia," *Revue Militaire Generale*, Fall 1972.

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The possible development and deployment of a radiological barrier based upon nuclear weapons which have no explosive component may have singular applications in the case of India. Because radiological munitions potentially represent substantially more effective barriers to enemy troop and supply movement than do conventional munitions, and since radiation countermeasures are not easily achieved by technologically unsophisticated enemy, such weapons might be attractive to a state wishing to defend its borders against intrusion. Because of its passive defense nature, it is difficult to regard such a barrier in the same vein as "conventional" nuclear explosives. It is not deliverable and thus has no offensive potential or escalatory implications. Moreover, its "firepower" is not directed toward enemy personnel but instead is emitted isotropically and can be avoided simply by avoiding the barrier.

As is the case with tactical nuclear weapons, there is little specific discussion in the Indian literature concerning weapons for strategic deterrent purposes. Perhaps the most articulate Indian strategist on the subject of strategic nuclear weapons is economist Subramanian Swamy. He has discussed both land and sea-based IRBMs (soft and hardened). Aircraft as strategic bomb carriers are not discussed in the Indian literature, presumably due to the belief that they would be subject to first strike attack by Chinese missiles.

Expanding upon the meager Indian discussion of strategic weapons suitable for India, American strategists would list the following possibilities for New Delhi:

- IRBMs carrying fission warheads in the tens of kt range (although the Indian literature does not make extensive mention of protection from Chinese first strike, consideration of that possibility may, in time, lead the Indians to substitute hardened or, more likely, SLBMs for land-based IRBMs).
- An orbital fission weapon derived from the projected Indian educational satellite program.

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- Medium range bombers coupled with adequate radar warning against a first strike.

While in theory it may eventually be possible for the Indians to develop an IRBM/SLBM force with the accuracy needed for use as a pre-emptive force against Chinese missiles, this option is not discussed in the Indian literature. Technical problems would have to be solved before India could construct the requisite delivery systems. In a similar vein, it may be possible in the future for the Indians to construct an ABM system for use against Chinese reentry vehicles. However, substantial technical obstacles remain to be overcome before such an Indian system would appear feasible. SAMs would not pose such severe technological requirements as ABM. Nevertheless, they would not seem possible in the near future due to the need to reduce the weight of the warheads and the need for advanced detection and guidance equipment (unless, of course, they were procured from the Soviet Union). One other type of preemptive possibly exists for the Indians. That would be antisubmarine nuclear depth charges should the Chinese develop SLBMs. To be effective, such a system would have to be coupled with additional destroyers or "hunter-killer" combinations of submarines, surface ships, aircraft, and sophisticated submarine detection equipment. The latter would appear at this point to be beyond the immediate reach of Indian technology, although such equipment might be supplied by the Soviet Union.

### B. Japan<sup>1/</sup>

Tokyo has consistently upheld the "three nonnuclear principles" of not possessing, producing, or introducing nuclear weapons in Japan. By the 1970s, however, Japan's so-called "nuclear allergy" had weakened to the point that the benefits and liabilities of nuclear weapons acquisition were openly debated. The Defense White Paper of October 1970 settled the issue (in view of Article 9 of the Constitution) of the legality of nuclear weapons for Japan by declaring "small-size nuclear weapons...for the minimum necessary limit for self-defense" to be constitutional. A unified government

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<sup>1/</sup> For detailed analysis, see Input Substudy D.

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statement in March 1973 reiterated that "tactical/strategic<sup>1/</sup> nuclear weapons exclusively for defense" are constitutional, while at the same time it again declared that "generally speaking, nuclear weapons are offensive weapons, and Japan will not hold them."<sup>2/</sup> The debate on whether Japan should acquire or eschew nuclear weapons seems increasingly to be centered on the actual benefits such armament could yield for the island nation rather than on the emotionally charged moral issue which, in the past, dominated the debate and appeared to rule out the nuclear option for Japan.

### I. Incentives

Proponents of nuclear weapons for Japan foresee both political and military advantages from nuclear armament. The 1971 "Nixon shocks"--the new U.S. China policy, import surtaxes, and yen reevaluation--clearly demonstrated to Japan that when its interests conflicted with those of its superpower ally, Tokyo, not Washington, would be forced to make the sacrifice. The magnitude of Washington's apparent perfidy was such as to give considerable additional weight to questions which had already been raised concerning the credibility of the U.S. nuclear guarantee for Japan. If the U.S. could act with callousness on such matters, how could it be relied on to honor a commitment which could involve it in nuclear war with China or the Soviet Union, it was asked. Autonomous defense for Japan appeared to be the only mode for assured response to threatened attack.

The Sino-Soviet rivalry has placed Japan in a peculiar position. Both the Chinese and the Soviets are attempting to win Japan over to their particular side and to alienate it from the other. A Japan allied with the Soviet Union would heighten Chinese perception of encirclement by the Soviet Union, while a Japan allied with China could significantly strengthen China's position vis-a-vis the Soviet Union. Thus far, the rival powers have restricted their efforts to gain Japanese allegiance to economic and political incentives coupled with threats concerning the consequences of a Japanese defection to the opposite camp. However, it is not certain

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<sup>1/</sup> The Japanese characters senjutsu mean either "tactical" or "strategic," depending on context.

<sup>2/</sup> Yomiuri Shimbun, 15 March 1973, in Japanese.



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that this situation, which allows Tokyo to take advantage of the inducements offered by each without commitment to either, will continue indefinitely. Soviet reconnaissance planes fly regular missions over Japan in a form of implied threat, and Soviet fishing craft have long bullied Japanese fishermen while Tokyo has been helpless to do more than protest. Most recently, a highly placed Japanese spokesman implied that Tokyo would be willing to sign a peace treaty with Moscow (ending World War II) without having settled the issue of the Northern Territories. Until this time, the Japanese government had been adamant in its refusal to sign such an instrument until the question of the Japanese islands, seized by the Soviets at the end of the War, had been settled. Tokyo's new tractability may lead, in time, to a decision to come to terms with the Soviets in the new era of the Nixon Doctrine, U.S.-China detente, and uncertainty of U.S. commitment.

In such a threatening atmosphere, and with the growing disillusionment with the reliability of the U.S. nuclear guarantee for Japan, nuclear weapons could appear attractive to advocates of autonomous defense for Japan. Although the size of the island nation and its dense population centers make it an ideal target for a nuclear strike, nuclear weapons in the hands of the Self-Defense Forces, particularly if they are deployed at sea or in orbit, would substantially raise the price of an attack on the home islands.

Autonomous defense is essential to the successful pursuit of autonomous diplomacy, which has been a constant goal of the Japanese government. This issue was brought into sharp focus with Japan's humiliation in the U.N. occasioned by its following the U.S. policy concerning admission of the People's Republic of China into the world forum. It was heightened by the subsequent volte face in U.S. China policy. Japan's achievement of foreign policy autonomy has been limited by its dependence on the U.S. nuclear umbrella, which has influenced Tokyo to follow Washington's lead on major international issues. An indigenous Japanese nuclear force would free the government, at least in part, of this dependence, consequently affording it some latitude in foreign policy which the Sino-Soviet rivalry makes necessary to Japan's continuing viability.

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Domestically, the presence of U.S. military bases on Japanese soil has been a constant irritant in Japanese politics for a number of reasons. The visible U.S. presence serves as a reminder of Japan's defeat in World War II and emphasizes the nation's dependence on American goodwill for security. Furthermore, in a country where land is scarce to the point of being unavailable, the space occupied by the U.S. bases is viewed as land denied to the nation for development, food production, or housing. If Japan is to rid itself of the U.S. bases, it may opt to fulfill the defense requirements, hitherto met by the American presence, by development of a nuclear force.

Economically, Japan is a major power, enjoying the world's third largest GNP,<sup>1/</sup> but it has not been accorded the respect which Japanese leaders feel befitting to their country's position. The carelessness with which Japanese interests have been treated by the U.S. in the repeated yen crises, by the Soviet Union concerning the Northern Territories, the fisheries dispute, and regular air intrusions, the humiliation suffered when the PRC extracted an apology for World War II misdeeds from Tokyo and reversed Japan's policy of separation of politics and economics as the price for expanded relations between the two countries, the position in which Japan finds itself with respect to the Sino-Soviet split by reason of geography, and the extreme vulnerability of Japan's vital trade routes and fuel supply lines have all contributed to a feeling of impotence on the part of the Japanese government. Tokyo has, in the eyes of Japanese, been unfairly excluded from the councils of the great powers in which it rightly should have a place.<sup>2/</sup>

Accompanying the perception that Japan has been excluded from important international participation is the increasingly popular view that the United Nations has become a nuclear club in which only those powers which possess nuclear weapons can enjoy permanent, and therefore

<sup>1/</sup> New York Times, 27 February 1973, p. 4.

<sup>2/</sup> See, for example, statement by Liberal Democratic Party Secretary General Tomisaburo Hashimoto in New York Times, 27 February 1973, p. 1. Japan's exclusion from the conference to plan the reconstruction of Indochina particularly rankled the Japanese government.

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decisive, Security Council status.<sup>1/</sup> Other factors, such as economic power, are apparently not sufficiently respected, or do not give enough leverage, to constitute eligibility to the world's elite. To the Japanese, the denial of that world role for their country is a measure of Tokyo's inability to tend its interest abroad. It thus bears directly on the vital issues of fuel supply, maritime trade, and the international monetary system. With nuclear weapons the recognized criterion for admission to the elite circle of world decision-makers, Tokyo may take an increasingly favorable view of their utility for Japan.

### 2. Disincentives

Although nuclear weapons appear to exercise a certain attraction for Japan, there are distinct disadvantages to their acquisition by that country. Tokyo is acutely aware of charges, particularly made by the PRC, concerning the "remilitarization" of Japan. A Japanese nuclear force could be expected to increase such accusations and may even precipitate a movement to form an anti-Japanese military alliance among nations which suffered Japanese occupation in World War II. Tokyo must be sensitive to world opinion because of the vulnerability of its trade, and such a move could result in economic discrimination, closing of vital waterways, or similar problems.

Furthermore, were Tokyo to announce its intentions to develop a nuclear arsenal, it is conceivable, although not likely, that either China or the USSR would decide to prevent the realization of that plan by direct military action. While Japan, in and of itself, is vital to neither communist power, its pivotal position in Asia places it in a potentially crucial, and therefore dangerous, role in the Sino-Soviet rivalry. A nuclear-armed Japan could conceivably continue to play off the two giants against each other, or worse, in their opinion, dramatically shift the balance of power by allying with the other. While this is true to a nonnuclear Japan, it is doubly true for one armed with credible nuclear

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<sup>1/</sup> See statement of Professor Jun Eto at the U.N. in Los Angeles Times, 6 October 1971, p. 21.

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weapons. Thus, the price Japan might be forced to pay for a decision to develop nuclear weapons could be the actuation of the very events it wished to avoid through nuclear armament.

Internally, Japan would pay the price of at least temporary disunity and dissent unless its decision to develop nuclear weapons were made under circumstances in which its national survival and autonomy were clearly threatened. Although the strong moral aversion of nuclear weapons voiced by the Japanese public has decreased significantly in recent years according to public polls, a large segment of the populace<sup>1/</sup> remains opposed to the acquisition of nuclear arms by their country. An anti-nuclear stance is incorporated into the platforms of the major opposition parties,<sup>2/</sup> as well. Demonstration of public disapprobation could hinder the realization of a decision to acquire nuclear weapons, or it could disrupt normal functions so severely that the government would be compelled to reconsider its decision.

Constitutionally, nuclear weapons which are defensive only are permissible to Japan. However, this provision is subject to grave difficulties in interpretation and application. A credible nuclear deterrent today assumes possession of a second strike capability, which, in turn, implies deployment of SLBMs. These missiles, by current Japanese definition, must be considered offensive weapons. Thus, although nuclear weapons possession is theoretically permitted under the Japanese Constitution, the types permitted are so limited as to make their acquisition impracticable under current circumstances. Nevertheless, this appears to be only a minor difficulty. If conditions appear to call for a Japanese nuclear deterrent, the government could simply "clarify" the meaning of "defensive" as it applies to nuclear weapons.

Economics is no constraint on nuclear weapons development for Japan. The country presently devotes only 1 per cent of its GNP to the

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1/ For example, a Yomiuri poll (31 May 1970) showed 67 percent of the Japanese populace opposed to Japanese nuclear armament.

2/ Both the Japanese Socialist Party and the Japanese Communist Party are vehemently opposed to Japanese nuclear weapons development.

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defense budget. Although in terms of actual sums spent, this placed the country seventh highest in the world in 1972, it is clear that Japan could afford considerably greater defense allocations before serious economic dislocation became a danger. Furthermore, the advanced development of Japan's civilian nuclear energy and space programs would reduce the actual costs of a nuclear weapons program.

### 3. Scientific Base for Nuclear Weapons Development<sup>1/</sup>

Even though Japan's Atomic Energy Commission was not created until 1956, it was barely one year before the first research reactor (URR-1) went critical. Commercial power was first distributed in 1966, and by the end of 1973 over 2500 MWe will be in operation. The year 1974 should witness another 3000 MWe brought on line, with an officially endorsed planning total of 60,000 megawatts slated for 1980.

Nuclear energy is viewed by the Japanese government as playing an increasingly important role in the coming decades. It is expected to become the principal source of energy for future Japanese economic growth. Estimates of the Japanese GNP and electrical power growth through 1980 are 10 to 11 percent annually. Nuclear energy development is also seen as contributing to the scientific and technological level of the nation, assisting to modernize the industrial structure, and helping to raise the Japanese standard of living. The emphasis placed upon the nuclear program and the development status to date reflect these attitudes. By 1976, 12 percent of all electrical power generated in Japan will be derived from nuclear power generating stations. The nuclear capacity will increase so that new generating capacity installed by early 1980 will be half nuclear. The total nuclear capacity in 1980 will be greater than 35,000 megawatts or 20 percent of the estimated total 1980 generation capacity. Dependence upon nuclear fuels, as well as upon fossil fuels and trade, is an important economic factor to Japan.

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<sup>1/</sup> For detailed analysis, see Input Substudy F.



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Since initiation of a research and development program in 1956, significant progress has been made in reactor development, power generation, nuclear fuels, and other related areas, such as irradiation and isotope application. By law, all work is unclassified. Although an active industrial and government sponsored research and development program exists, growth of Japanese nuclear industry has followed the familiar pattern of absorption of foreign technology by importation of goods and technology through licensing, followed by eventual large scale manufacturing and self-sufficiency. Both the reactor and fuel sectors of the industry have been closely allied to foreign manufacturing concerns and at present are in transition to full assimilation and eventual technical self-sufficiency.

Although Japan is achieving nuclear technical independence, fuel input and reprocessing factors are heavily dependent upon international resources. The United States is presently the sole supplier of enriched uranium fuels for all but one of the existing and planned power reactors, hence these reactors or the fuel input and output are safeguarded. Advanced reactors, such as breeder and advanced thermal reactors, of Japanese design may have similar constraints, depending on the origin of the fuel. Indigenous fuel fabrication capacity is limited; major support in processing and fabrication is obtained from Britain, France, and the United States. As a direct result of these factors, for the foreseeable future, Japan will not have a suitable source of critical material to support even a modest military nuclear weapon stockpile without violation of safeguards developed by present agreements with signatory nations.

Japan has the technical capacity to develop high quality fission weapons within a year or two after deciding to proceed, but present external controls over critical materials are such that Japan must either abrogate existing treaties or construct a constraint free capability. Sanctions which conceivably could be imposed as a result of abrogation could place extraordinary stress on the electrical energy generating capacity. Such an action would, in turn, impede the economic development of the nation. Alternately, the steps required to convert

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existing facilities, to construct additional plutonium production capacity, and to ensure safeguard-free fuel inputs would require at least five years and ample public notice of intent. A clandestine development, while technically feasible, would result in a limited number of weapons prior to detection and would be vulnerable to crippling sanctions on nuclear electric power production.

One may conclude that, although Japan has the technical competence for developing military warheads, she is ensnared in a web of prior agreements made in consideration of the acquisition of technological and critical resources. This limits the size of the near and mid-term potential stockpile of a few weapons total. This situation could be corrected by the construction of plutonium producing reactors outside of safeguard controls or by abrogation of safeguard agreements. If agreements are broken, Japan will not really gain an advantage because of the nature of the reactor resources available. In fact, Japan would expose herself to considerable adverse action, which could impair her economic development seriously. Construction of reactors capable of plutonium production outside of safeguards would take time and would be a transparent act subject to considerable internal and external debate.

The Self-Defense Forces (SDF) are small but well-financed and equipped, with an emphasis on domestic self-sufficiency. The vintage F-86 squadrons are to be replaced by the Japanese designed and built FST-2; F-104 squadrons are being phased out in favor of F-4s, most of which will be manufactured under license in Japan; and naval equipment is rapidly being Japanese built. Japanese ship builders have completed eleven submarines and one nuclear powered merchant ship. There is a possibility of a nuclear powered submarine, although government spokesmen have parried opposition charges to that effect.

The nature of the SDF and the constitutional and domestic strictures on them confine their activities to operations near the home islands. No long range capability--either in ships (the largest combatants being destroyers) or in aircraft (with no bombers)--has been permitted. Yet, the space program with its applicability to weapon delivery systems has made important strides.

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From a one-half pound pencil rocket in 1965, the Japanese proceeded in February 1970 to place a satellite in earth orbit using a Lambda 4S5 booster. The space launch vehicle currently in use, the MU-IV, compares favorably in size with the U.S. Minuteman ICBM. Development is underway on an "N" rocket which will ferry satellites in 1975-1977. It is about two-thirds longer and one third larger in diameter than Minuteman.

Proven abilities in electronics and computers, inter alia, leave no doubt that Japan could produce a surface-to-surface missile force if the decision were taken to do so. More tentatively, because there are additional hurdles to cross, an orbital bombardment system for Japan should not be ruled out. It could be deployed relatively quickly if need be, or even clandestinely under disguise.

#### 4. Possible Weapons Systems

The Japanese are even less inclined to write about specific types of nuclear weapons for particular purpose than are the Indians, who are themselves vague on this subject. Hence, projections of what nuclear weapons Japan might procure for which purposes must, of necessity, rely primarily upon American strategic thought. From such a perspective, the basic Japanese nuclear weapons need appears to be a force suitable to deter Chinese, and possibly also Soviet, threats against the urban centers on the home islands and, by the same token, to deter Chinese or Soviet nuclear blackmail. Because of Japan's location proximate to both the PRC and the USSR, any deterrent force which would be survivable would probably have to either be sea- or space-based or very quick reaction aircraft based in the home islands. Japan could probably fabricate both SLBMs for submarines and quick reaction aircraft, with associated radar warning nets (the former would probably offer a superior second strike weapon). No matter which delivery system is used, warheads and bombs in the tens of kt range would be readily obtainable by the Japanese.

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Thermonuclear warheads and bombs should be within Japanese reach by the end of the decade should the nuclear decision be made soon.<sup>1/</sup>

The Japanese should be able to develop antisubmarine forces, including advanced sonar detection, and nuclear depth charges, with which to combat the Soviet and possibly later Chinese SLBM forces. SAMS and an ABM are also seemingly within the Japanese technological grasp, including the specialized warheads for both. Further, the advanced state of Japanese technology opens the possibility of the development of various laser weapons and of orbital nuclear weapons derived from the Japanese satellite experience.

From an American perspective, tactical nuclear weapons make less sense for Japan than do strategic forces designed to deter attack upon the home islands. Nevertheless, Tokyo may desire tactical nuclear weapons for use in defending the home islands against an invasion. Such weapons could include air delivered bombs in the kt range, ADMs, ASMs, and short range missile warheads and artillery rounds. Even the smaller weapons which are more difficult to construct should be well within the technical capabilities of the Japanese. Enhanced radiation weapons (the "neutron bomb") should also be feasible for the Japanese.

An important Japanese concern is the possible loss of the South Korean buffer and the threat of a united Korea under North Korea-USSR control. In fact, Japanese war games have been based upon scenarios in which Japan would commit forces overseas in the defense of South Korea. Conceivably, such a contingency could provide the rationale for a tactical land nuclear capability, but Japan must be cautious about provoking fears that could jeopardize her other political and economic interests throughout Asia.

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<sup>1/</sup> Should the Japanese seek a preemptive capability against either the Chinese or the Soviets, and it should be noted nothing in the Japanese literature indicates such desires, both the high yield weapons and the necessary accuracy should be within the scope of Japanese technical ability.

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### C. Opportunities for Cooperative Nuclear Programs<sup>1/</sup>

The possibility of a cooperative effort between India and Japan to develop nuclear weapons appears very remote. For such a joint enterprise to succeed, it must be built on a solid basis, not only of shared interest and purpose but also, preferably, on a foundation of mutual trust and respect and a tradition of cooperation. All these elements are lacking in the case of joint Indian-Japanese nuclear weapons development. Japan, while threatened by both the communist giants, perceives its main enemy, at present, to be the Soviet Union. India, on the other hand, is allied with the USSR but continually expresses apprehension regarding Chinese intentions, although some Indian authors do imply that the Indo-Soviet friendship may be shortlived.

Japan and India lack a tradition of cooperation. In fact, the two may be viewed as undeclared rivals for the leadership of noncommunist Asia. Rather than expressing trust and respect for each other, each views the other with a degree of scorn tinged with suspicion. Japanese look down on Indians as disorganized incompetents, people who simply are not on a par with themselves. Indians, in turn, regard the Japanese through eyes of righteous scorn; to them, the Japanese encapsulate all the undesirable characteristics of industrialized materialism, a syndrome the Indians pride themselves on supposedly having escaped by virtue of moral superiority. Under such conditions, it would clearly be extremely difficult for the two nations to enter into strategic cooperation in circumstances characterized by anything less than threat of imminent destruction of both by a common enemy.

Furthermore, in order for a joint enterprise to be viable, each of the cooperating parties must be able to contribute something to the venture which the other(s) could not furnish. As has been clearly demonstrated in Input Substudy F, there are few areas in which Indian and Japanese nuclear development are complementary. One exception might be India furnishing

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<sup>1/</sup> Little evidence exists that either India or Japan is interested in any kind of joint nuclear weapons ventures.



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thorium, uranium, or iron ore to Japan in return for technical expertise from Tokyo in space research and, possibly, missile delivery systems. Both countries are vitally interested in fast breeder reactors and may find it of mutual benefit to pool their efforts, but technical exchanges between the two countries up to this point have been minimal.

Even a joint Indian-Japanese effort to develop nuclear weapons to provide regional security to noncommunist Asia seems unrealistic. While Asian regionalism, in particular an Asian association with a primary or collateral purpose of collective security, might appeal to Japan, it would probably not be attractive to India. An Asian security council would provide a forum in which Japan could reassure other countries of its good intentions, thereby assuaging fears of a resurgence of Japanese aggression. Rather than stimulating regional distrust, Tokyo might assess the situation as one in which it could exert regional influence from the inside, as it would certainly be in a leadership position.

In contrast, India would probably not be attracted to an Asian security organization. Based on its historical commitment to independence and neutrality, and in the absence of any vital strategic interest in areas outside of South Asia, India could be expected to eschew membership in such a body. An economic motive might be more enticing, but the small size of India's foreign trade and the poor prospects for improving it weigh against any strong motivation toward increased collaboration on the basis of economics.

Thus, in the present decade at least, the possibility of cooperation between India and Japan for the development of nuclear weapons appears remote. However, were a situation which clearly threatened the continued existence of both suddenly to develop and thus make cooperation in mutual defense either highly advantageous or even imperative, it would be only logical for the two states to bow to the exigencies of the moment and cooperate in whatever ways possible.

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## IV THE EFFECTS OF A NEW NUCLEAR POWER

### A. United States Interests and India

Indian self-defense and self-reliance in security matters are not inconsistent with the Nixon Doctrine, assuming that a self-reliant India does not ally with the Soviet Union against the United States and that the integrity of Pakistan is not directly threatened by India.<sup>1/</sup> The logic of the Nixon Doctrine is that Indian ability to police the Himalayas, assure the integrity of the subcontinent, help preserve the security of the Indian Ocean, and maintain a noncommunist environment in the sensitive area of South Asia would be consistent with U.S. national security objectives. The U.S. would prefer to see stability and security in South Asia assured from within the area, and Chinese threats and encroachments deterred principally by indigenous capabilities. To the extent that an Indian nuclear force would contribute to these objectives and not be prone to accidents, it is difficult to conclude that such a force would conflict with overriding U.S. interests.

The authors conclude that, on balance, the U.S. and India share major interests in the area and that the pursuit by India of its basic security interests need raise few, if any, conflicts with U.S. interests. The U.S. interests summarized in Section II should govern U.S. policy toward India even in the event of an Indian quest for nuclear weapons.

The study of India's security objectives indicates that they are along traditional lines of self-defense and of preserving the integrity of the

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<sup>1/</sup> The integrity of Pakistan now seems threatened more by separatist movements amongst ethnic groups on its west and north, movements in which there is evidence of Sino-Soviet rivalry with a foothold on the Indian Ocean at stake. It is to the interest of both the U.S. and India that this area not be the subject of such conflict, nor come under the domination of China or the Soviet Union.

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subcontinent against the Chinese threat, excessive Soviet influence (and excessive U.S. influence), and regional instabilities that threaten the viability of India. India's desire to further such objectives and to be regarded politically as a more important power, do not seem contrary to U.S. interests.

Indian security concerns and defense objectives show preoccupation first with security on India's land periphery; second, a concern over the nuclear threats from China, both tactically and--at least for its political effects--strategically; and third, an interest in preventing control of the Indian seas by a hostile power. Underlying all is concern about dependence upon another power in meeting those threats. India's military policy is to eliminate or reduce dependence on foreign sources for defense and defense materiel, and to develop a "readily usable military force which can be applied in a selective and controlled way to achieve well-defined, limited objectives, without causing severe damage or unnecessary loss of life." India's interests in nuclear weapons (beyond the question of "purely political" devices) seem to run to nuclear weapons in accordance with that policy and oriented to border defense, some deterrent force capable of neutralizing any nonborder area Chinese nuclear threat, and eventually improved air defenses. The forces required by India for these purposes need not constitute any direct threat to the U.S. or be destabilizing in the context of the U.S.-Soviet strategic nuclear balance. Nuclear weapons for border defense, e.g., vis-à-vis Chinese forces in the Himalayas or in the corridor between Bhutan-Sikkim and Bangla Desh, particularly if to be used on Indian territory only in the face of an attack, could be regionally stabilizing, not destabilizing, and therefore be in accord with U.S.--and presumably, Soviet--interests.

The Indians have no requirements in the immediate future for inter-continental range nuclear forces. It would appear to be in India's interests to ensure that any strategic deterrent forces against China be designed to minimize U.S. and Soviet concerns and to avoid becoming involved in the U.S.-Soviet confrontation. Strategic deterrent forces designed for China need only to have a range capability to extend from northern Indian bases to important Chinese urban-industrial targets, which range is from 1300 nm

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to about 2500 nm (including less than 1500 nm to the gaseous diffusion plant at Lan-chou), or about 800 nm for a reasonable coastal deployment of a sea based force.

### B. United States Interests and Japan

As in the case of India, Japanese self-defense and the assumption by Japan of greater responsibility for regional stability and security seem consistent with the Nixon Doctrine and need not necessarily lead to developments contrary to U.S. interests in Asia, depending upon Japanese aspirations and the success of U.S. policies designed to work with these aspirations. To the extent that the Japanese perceive an identifiable threat against which Japan may have to provide a deterrent, that threat emanates from its two potentially minatory nuclear neighbors--China and the Soviet Union. It would be with possible threats from those powers in mind that Japan might consider and plan a nuclear deterrent force. Thus, a Japanese nuclearized Self-Defense Force need not be contrary to U.S. interests. (It should be noted, however, that Japan consistently denies interest in developing its own nuclear deterrent.)

In determining the implications of possible Japanese nuclear proliferation for U.S. interests, the central issue to be considered is whether Japan will be a force for stability in Asia in the future, whether she will assume increased responsibility for the security and stability of the area (not only through economic development, but also politically and militarily), and whether the Japanese role will be one in cooperation with the U.S., independent of the U.S., or in alignment with Peking or Moscow. Pressure exists in Japan--and will probably grow--to free Japan of military ties with the U.S. How Tokyo and Washington view their long term relationship is critical to all of these matters.

The character of a nuclear weapons deployment by Japan may well indicate just how far the Japanese government intends to go toward freeing Japan of military ties with the U.S. Reactions of the U.S., in turn, will reveal how great a role Washington expects to play in Asia, how much responsibility it wishes Japan to assume, and how much the U.S. values active U.S.-Japanese cooperation.

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Nuclear weapons for Japan would provide an independent substitute for U.S. military guarantees, without necessitating a turn toward reliance on the Soviet Union to safeguard Japanese security requirements. They would undoubtedly be the final necessary ingredient in a major (or great) power role for Japan, and to the Japanese may seem to assure Japanese independence and enable Japan to play, when appropriate, an effective, independent role in U.S.-Soviet-PRC rivalries. Japan undoubtedly realizes that national nuclear weapons can be very useful in regard to friends as well as against enemies.

Japan's nuclear interests, then, seem more closely related to political aspirations than to immediate security concerns, although the desire to decrease reliance on another state for national security in possible future contingencies involving nuclear threats certainly is a vital factor.

Nevertheless, should Japan decide to develop a nuclear arsenal, it may wish to acquire a survivable strategic deterrent not deployed on the major home islands. A Japanese sea based nuclear force, depending upon its mode and deployment, could be used to threaten the U.S. Unlike India, Japan would find it very difficult--if not impossible--to avoid becoming involved in U.S.-Soviet or U.S.-PRC confrontations. Seeking independence in political and national security matters as well as great power status, Tokyo could intentionally develop an "all-azimuth" strategy and force, particularly in a multipolar balance of power world structure.

### C. The People's Republic of China and the Soviet Union

Both the People's Republic of China<sup>1/</sup> and the Soviet Union<sup>2/</sup> can be expected to view nuclear proliferation by India and/or Japan in light of the Sino-Soviet rift. Each is preoccupied with the conflict, which manifests itself, among other ways, in competition for strong allies. Thus, the confrontation between the two communist giants acts to a certain degree as a restraint on their freedom of action where relations with third

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<sup>1/</sup> For detailed analysis, see Input Substudy E.

<sup>2/</sup> For detailed analysis, see Input Substudy C.



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powers are concerned. It is within this limiting context of the Sino-Soviet split that the implications for China and the Soviet Union of Indian and/or Japanese nuclear proliferation have been considered.

Although Peking has recently evinced a favorable attitude toward closer relations with Tokyo--due to Japan's strategic geographical location on China's periphery, which would make Japanese alignment with the Soviet Union a serious setback to China, and the island nation's industrial might--the PRC continues to be wary of the "remilitarization" of Japan. A Japanese announcement of a decision to acquire a nuclear capability can be expected to arouse apprehensions in Asia--including China--of a renewed Japanese expansionist drive.

The People's Republic of China would probably condemn a Japanese decision to gain nuclear weapons, unless those weapons were clearly intended for Soviet targets. However, Peking would in all likelihood confine its opposition to propaganda statements. These may be vigorous in their disapproval of the Japanese decision or they may be cautiously restrained, depending on the current state of affairs in the Peking-Moscow rivalry. The PRC will in any case take care not to alienate Japan totally with its propaganda lest Tokyo feel the necessity to seek refuge in an alliance with the Soviet Union.

After its initial hostile response to a Japanese announcement of intention to develop a nuclear arsenal, Peking can be expected to adopt a conciliatory attitude toward the island nation. China would continue in its efforts to attract Japanese goodwill and to prevent its becoming an ally of the Soviet Union. Like the U.S., the PRC could probably not afford obstinately to oppose Japanese nuclear armament and may hope to mold such an eventuality to its own purposes. If it were unable to direct Japanese nuclear weapons away from China and toward the USSR--and perhaps even if it did succeed in doing so--renewed calls for total prohibition and complete destruction of nuclear weapons will probably be issued by Peking.

The PRC's probable reaction to an Indian decision to develop nuclear weapons would be much the same as its reaction to a Japanese decision to do so. Although China has never suffered a massive invasion by India as

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it has by Japan, it has engaged in border warfare with its southern neighbor in the recent past. Furthermore, India has concluded a Treaty of Peace, Friendship, and Cooperation with the Soviet Union which the Chinese have described as a "military alliance." Thus, in the context of the Sino-Soviet split, Indian nuclear weapons would be viewed as furthering the alleged Soviet encirclement of China. However, recent Chinese statements, although concerned with the implications for the People's Republic of the Indian intervention in East Pakistan, display little respect for Indian military might.<sup>1/</sup> China may, in fact, perceive slight real alteration in the balance of power in Asia resultant from Indian nuclear weapons. Whether Peking felt that it was more threatened by indigenous Indian nuclear weapons than it was by the Indian alliance with the nuclear USSR, it would probably condemn the new development vigorously. Propaganda emanating from Peking would be aimed at isolating New Delhi both internationally and domestically so that the government would be forced to abandon the projected nuclear weapons program.

Should the Chinese propaganda campaign against Indian nuclear weapons development fail, as it almost certainly would, Peking would adopt a more conciliatory posture and attempt to repair its battered diplomatic relations with Delhi. In any case, China would not wish to alienate India irretrievably as long as the tense situation along the Sino-Soviet border continues.

Like China, the Soviet Union has few good response options regarding an Indian and/or Japanese decision to acquire nuclear weapons. While the Soviets do not have the same bitter memories of Japanese occupation as do the Chinese, Russia suffered a humiliating defeat at the hands of Japan in 1905 and again fought the Japanese at the end of World War II. A peace

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<sup>1/</sup> See, for example, Chiao Kuan-Hua's remarks as quoted in New China News Agency, 8 December 1971.

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treaty between the two powers has yet to be signed, continuing Soviet occupation of Japan's northern islands serving as the bone of contention.

The Soviets consider Japan to be of signal importance in the economic development of the Soviet Far Eastern provinces, in strengthening the Soviet presence throughout Asia by aiding in the containment of China and by increasing the isolation or counterbalancing of the U.S. in the area, and in establishing a Far Eastern power balance favorable to the USSR.

The Soviet Union's need of Japanese cooperation and friendship in the Asian balance of power is crucial given the presence of a hostile China, a wary U.S., and a Southeast Asia suspicious of the Soviet designs in Asia. Close Soviet-Japanese relations could greatly enhance increased Soviet activity and influence throughout East and Southeast Asia. In combination with a friendly and supportive India in South Asia, the Soviets could exert great pressure upon China, the U.S., and Southeast Asia. Without Japan, Soviet influence in Asia will be modified, and the real danger of China and the potential dangers posed by the U.S. and Japan increased.

The Soviet Union would not look favorably upon Japanese acquisition of nuclear weapons as it would have a destabilizing effect on the world nuclear power balance as perceived by Moscow. Japan would become one more nuclear power with which the Soviets must deal. In addition, it would represent a significant increment of power by a nation in a region where Soviet interests are high but security is low. Nevertheless, Soviet leverage for preventing Japan from developing nuclear weapons is minimal, as sanctions would serve only to alienate Tokyo.<sup>1/</sup>

Soviet apprehensions about a nuclear armed Japan would probably be translated into propaganda attacks. However, verbal onslaughts would likely be more than balanced by steady progress toward the normalization and expansion of Soviet-Japanese relations and the conclusion of agreements related to the joint economic development of the Soviet Far East. The USSR might also move toward a settlement of the northern islands dispute, with the Soviets gradually giving ground.

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<sup>1/</sup> While this is true in general, Japanese dependence on Mid-East oil provide a very real potential leverage by the USSR.

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Unlike Japan, India has entered into a treaty which appears to place it tenuously within the Soviet camp despite New Delhi's repeated claims that India's policy remains essentially nonaligned. An Indian decision to acquire nuclear weapons would cause deep concern in Moscow. Presumably, it would represent the failure of prior Soviet efforts to dissuade India from embarking upon such a course. It would also be a harbinger of changing relations between the two nations with the expectation that Soviet influence upon India would diminish in time, necessitating a restructuring of the Soviet Far Eastern posture.

Soviet policy reactions to nuclear proliferation by India are limited in both bilateral and international terms. Soviet leaders will likely consider an Indian decision to develop nuclear weapons as an indicator of India's will to seek its own way in international affairs. Indian nationalism will be the most serious obstacle to Soviet attempts to halt Indian proliferation, which it will view as giving India a freedom from Soviet tutelage not previously enjoyed. Although the Soviets could exert considerable pressure upon India through threats to cut back or curtail economic aid and military and technical assistance if India persisted in a nuclear weapons program, such events would presumably have been anticipated and the risk judged to be one with which the Indian leadership could cope. For its part, the USSR would have to steer a subtle course--one which would discomfit the Indians but not estrange them. Should Soviet pressures become too severe, the effect might well be to drive India into alliance with the West.

### D. The Asian Region<sup>1/</sup>

To the leaders of Southeast Asia, nuclear proliferation is a facet of major power diplomacy. With the possible exception of Indonesia, none of their countries is presently capable of countering proliferation by developing nuclear weapons of their own. And, even if such a course were open, the costs in terms of money and talent would be prohibitive.

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<sup>1/</sup> For detailed analysis, see Input Substudy A.

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The immediate effect on Southeast Asia of a Japanese decision to acquire nuclear weapons would be to compound existing apprehensions about Japan and its intentions in Asia. Most Southeast Asians would regard the decision as a first step toward establishing the political and military corollaries of Japan's economic domination of the region. Further, these nations would see the development as still another factor of destabilization in major power relations in the Far East. They would be required to redefine their attitudes and policies toward the major powers in accord with their security needs.

In the hope of stabilizing the Asian power balance and, thereby, their own immediate external environment, the governments of most Southeast Asian nations would probably urge the United States to return to a larger, more active Asian role. They would seek to persuade Washington to abandon the low military and political profile suggested by the Nixon Doctrine and would strive for firm security commitments from the U.S.

If the Southeast Asian governments failed to get security guarantees from the United States vis-à-vis Japan, they may look to the USSR for security arrangements. Coupled by links of trade and aid, this development might offer a means of shelter to Southeast Asia and an alternative to the power vacuum some fear may be created by the Nixon Doctrine.

On the other hand, the Southeast Asian nations may respond to Japanese nuclear proliferation by accelerating the proposed neutralization of the region. At present, neutralization is in an exploratory stage, but should Japan embark on a nuclear weapons program, the nations of Southeast Asia may be willing to subordinate the longstanding differences among themselves and collectively approach the major powers with a specific and detailed program for neutralization.

Finally, should Japan acquire nuclear weapons, Southeast Asian nations might move toward the development of a regional defense system. This second untried but important option has been, like neutralization, a topic of considerable discussion, although discussions have been informal and largely theoretical. However, in the event that Japan were to acquire nuclear weapons, the movement toward regional defense would probably be accelerated, especially if plans for neutralization seemed hopeless.

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Southeast Asian reactions to Indian nuclear proliferation would not be as sharply apprehensive as reactions to a similar development in Japan. The countries of the region believe they have little to fear from India, even a nuclear India, because it is generally felt that India lacks sufficient internal cohesion to become an aggressive Asian power, and because there is no imperial taint to recollections of India. They point out the existence of deep political cleavages in India and underscore the potentially turbulent forces that would be let loose should India embark upon an expansionistic course. Unlike Japan, Southeast Asians do not believe that the state of India's economy could long withstand the rigors imposed by a militaristic policy. Further, they observe, Indian ambitions are checked by three powerful nuclear states operative in the area. The Indo-Soviet relationship would, in the Southeast Asian view, serve to keep Indian ambitions in check in much the same way that Japan may be restrained by the U.S.-Japan security pact. So, too, would the presence of a suspicious and potentially hostile China. Finally, the U.S., in cooperation with either the USSR or the PRC, might be brought into conflict with India should that nation seek to upset the tenuous balance of power in Asia. Should India go nuclear, the dominant Southeast Asian reaction would be to do or say little. The governments would generally share the view that India had chosen the nuclear option to offset the nuclear threat posed by China.

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### V. U.S. OPTIONS RELATING TO THE ACQUISITION OF NUCLEAR WEAPONS BY INDIA AND/OR JAPAN

A number of alternative U.S. response options in the event of nuclear weapons proliferation by India or Japan have been considered. No attempt will be made in this section to examine these alternatives in detail; rather, conclusions based on a study of each alternative will be presented.

#### A. U.S. Alternatives Prior to Commitment

Assuming that the U.S. will not encourage India or Japan to begin nuclear weapons programs and will be interested in ways to discourage such programs, either before a final decision is made to go nuclear or after such a decision but before firm commitment (or before the "substantial progress in the development of nuclear weapons" stipulated in U.S. atomic energy legislation is attained), certain alternatives may be considered. In theory the influence and power that the U.S. could bring to bear to support an antiproliferation or a nonproliferation policy is considerable, but in practice it will undoubtedly be quite circumscribed. In the first place, there are some conceivable options open to the U.S., such as aggressive military action, which will not be seriously contemplated. In the second place, as this report has concluded, the U.S. has interests vis-à-vis both India and Japan that clearly override any interest in preventing either from acquiring nuclear weapons. Finally, there are distinct limits on what the U.S. could do to prevent a country with the capability and motivation from developing nuclear weapons. With these limitations in mind, five general categories of response options will be examined.

##### 1. Increased Nonnuclear Military and Technical Assistance

Increased U.S. nonnuclear military and technical assistance to potential Nth countries could be offered in order to lessen the security concerns that may be leading toward nuclear weaponry by helping the recipient strengthen its conventional military forces. In the case of India, this would require a change of U.S. policy and probably a change in existing legislation as well. (The Foreign Military Sales Act, 1969, Chapter 1,

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Section 4, and the Foreign Assistance Act, 1970, Paragraphs 119 and 120, limit U.S. military-technical aid to India.)

Such assistance could improve India's capabilities and confidence in nonnuclear defense against nonnuclear Chinese threats and also its abilities to extend defensive capabilities eastward and westward as necessary. Additionally, it would reduce any Indian dependence upon the Soviet Union and help balance Soviet influence on India.

It is not at all clear what type and level of assistance might persuade India to refrain from, or reconsider, a nuclear weapons decision (or whether the U.S. would be willing to grant such aid to a nonally). While there are identifiable major deficiencies in India's military capability--principally in air and naval defenses, but also in the army<sup>1/</sup>--there do not appear to be any critical deficiencies of such importance to India's nonnuclear defense that assistance would compensate for nuclear abstention. It is not defense against conventional (land) threats that concerns India (although the weapons may later also be oriented toward such threats.) Assistance against nonnuclear threats, therefore, would be unlikely to satisfy the motivations for nuclear weapons. Furthermore, given India's policy of avoiding dependence on external sources for defense materiel, it is questionable that India would find such assistance acceptable over any lengthy period (as contrasted with an immediate crisis situation).

Japan presents a different situation in that it now depends to a large degree on the United States in its military planning and in many areas of defense. The offer of greatly increased U.S. military-technical assistance might conceivably allay some of Tokyo's apprehension concerning U.S. policy toward Japan and the effects of U.S. force reductions in Asia. As in the Indian case, however, Japanese concerns are not focused on nonnuclear military threats to Japan (except naval threats to Japan's commercial sea traffic, particularly its fuel importation), and increased nonnuclear military assistance, except as it relates to securing the sea lanes, would probably not be relevant to the major considerations that could lead Japan to nuclear weapons.

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<sup>1/</sup> For example, in long-range artillery and munitions stocks.

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Since the effectiveness of this alternative may be related to the specific situation in India or Japan at the decision-making time, it should not be dismissed without further study. However, given the motivations of the two countries for nuclear weapons, it is not likely that increased U.S. nonnuclear military aid could prevent or reverse an Indian or Japanese decision to go nuclear.

One form of military assistance not included in this assessment so far is active military support. The Nixon Doctrine seems to rule out support in the form of major U.S. ground force commitment but holds open the possibility of direct air and naval support for both allies and nations whose survival the U.S. deems vital to its interests. Japan and India could, therefore, both be recipients of increased levels of active U.S. military support. Presumably, Japan could rely upon it for planning purposes, as an ally; India could not plan on it or rely on it and probably would not accept it except in a crisis situation.

In the case of India, while such U.S. support in a critical situation is not inconceivable, it would require a major policy change on the part of both India and the U.S. The promise of such support on a continuing basis as a substitute for national nuclear weapons would essentially be a security agreement, which neither the U.S. nor the Indians would be likely to find acceptable. In fact, the need to accept or rely upon such support would probably lead India to nuclear weapons as quickly as anything else. Consequently, this form of military assistance appears no more promising than other military assistance.

In the case of Japan, concern over an effective U.S. military presence in Asia, lack of credibility in U.S. military guarantees, and insufficient clarity concerning U.S. military policy in Asia over the long run could all be key considerations in a Japanese decision to go nuclear. Consequently, improved arrangements for U.S. military support could influence a Japanese nuclear decision. The considerations that may lead Japan to nuclear weapons, however, transcend such arrangements, which are difficult to imagine in perpetuity in any case. Such support may be more important in influencing the timing of a Japanese decision rather than the actual choice between nuclear and nonnuclear status.

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### 2. More Explicit Nuclear Guarantee

Since a major concern of both India and Japan is with possible nuclear threats from their neighbors, the U.S. could attempt to provide more explicit and credible nuclear guarantees against such threats, on both the tactical and strategic levels. On the tactical nuclear level, the guarantees might even extend to nonnuclear threats that the conventional forces of the country could not handle.

India, however, would be likely to reject reliance on such a guarantee as a substitute for Indian nuclear weapons, since great power nuclear guarantees are regarded as highly unreliable, incompatible with India's long term interests, and not fully relevant to India's security problems.<sup>1/</sup> To India, they require a dependence which is unacceptable over the long run, imply third rate political status, and pose intolerable risks of possible infringement of Indian sovereignty.

If Japan were to refrain from a national nuclear weapons program, a nuclear guarantee of security against nuclear threats and coercion would be essential. As noted above, the credibility and reliability of such guarantees are increasingly being debated in Japan, which implies that, to be at all satisfactory, the existing U.S. nuclear guarantee may have to be made more explicit and specific in the near future. The major uncertainty regarding the effectiveness of this alternative is how long Japan will want to rely on another power for nuclear security and how long other powers will want to extend such guarantees. A Japanese decision to go nuclear would probably be coincident with a weakening of the credibility and effectiveness of the U.S. guarantee or an attempt to reduce dependence on the U.S. and assert a greater degree of Japanese independence.

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<sup>1/</sup> Indians have generally identified nuclear guarantees with strategic nuclear guarantees, which, as they say, are "no answer to subversion or guerrilla warfare; no answer to an infantry push by the Chinese; no answer to a limited use of tactical nuclear weapons by the Chinese; no answer to scare raids; and no answer to blackmail... But these are precisely the contingencies which the Chinese are likely to create in the near future. They will not create contingencies in which U.S. power is a relevant deterrent." If a credible tactical nuclear guarantee could be worked out, it might answer such concerns.



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### 3. Political and Diplomatic Support and Pressure

Political-diplomatic means of influencing a prospective Indian or Japanese decision to go nuclear are available to the United States. These include, on the one hand, pressure against such a decision and, on the other, support for Indian and Japanese political or diplomatic objectives, such as enhanced political stature.

In both India and Japan, the issue of political-diplomatic status and the distinction between nuclear weapons states and nonnuclear weapons states figure prominently in discussions about nuclear weapons. If Japan or India could acquire the political-diplomatic stature of nuclear weapons states without actually possessing nuclear weapons, an important motivation for the weapons could be satisfied, at a price, perhaps of raising similar aspirations in the minds of other potential Nth countries. The U.S. could attempt to influence the nuclear decision by, for example, giving strong support to a permanent United Nations Security Council seat for India and Japan and to their inclusion in nuclear arms control deliberations.

If this approach held high probability of success, it would have considerable influence on decisions to go nuclear. Unfortunately, neither the probability of success nor of effectiveness seems high, and, already, most Indian spokesmen regard it as quite low. For India, the prospects of success of such a policy--including the specific examples of the permanent Security Council seat and inclusion in nuclear arms control deliberations--seem nonexistent. For Japan, the case is different due to Japan's demonstrated economic power, which gives Tokyo a strong reason for demanding such a position and the world for recognizing it. But for both, the effective accomplishment of equal political stature with the nuclear weapons states is highly unlikely. Equal political status between a protected nation and a protector nation is impossible; dependence upon another for a nuclear guarantee is compatible with neither complete independence nor great power political status.

An option exists to refuse to allow India or Japan, whichever might go nuclear first, a permanent Security Council seat as an object lesson to other potential Nth countries. The use of this as a threat

constitutes a form of political pressure against a nuclear weapons decision. Otherwise, the option of supporting an enhanced political-diplomatic status, especially for Japan, might be one the U.S. would wish to pursue for reasons in addition to influencing a nuclear decision. It could provide an on-going policy both before a nuclear weapons decision, in an attempt to influence it, and after any such decision, to maintain or improve relations.

#### 4. Economic Incentives

Various economic threats and grants in aid could be used by the U.S. to influence a nuclear decision, even though these might not be directly related to the motivations for nuclear weapons. For India, these seem to be in the areas of agricultural goods and technology; for Japan, they lie in the area of U.S. imports and technology, including enriched uranium for Japan's light water reactors. The options do not include major punitive economic measures--termination of grain and foodstuff shipments to India, embargo of Japanese goods--because such measures would probably be counterproductive.

#### 5. U.S. Nuclear Weapons Transfer

There are clear prohibitions regarding the transfer of nuclear weapons from U.S. control and custody to others, and the Joint Congressional Committee on Atomic Energy has consistently shown itself to be most reluctant to relax such legal restrictions.<sup>1/</sup> Transfer, therefore, does not seem to be an alternative the U.S. would wish to exercise. There are, however, new control technologies that could assure that transferred weapons are not used in any mode other than that for which they are specifically designed

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<sup>1/</sup> The definition of a nuclear weapon in the NPT or other international agreements leaves much room for unilateral interpretation. The U.S. Atomic Energy Act (42 U.S.C. 1954, as amended 1958) defines, for the purposes of U.S. legislation, a nuclear weapon as "any device utilizing atomic energy...the principal purpose of which is for use as, or for the development of, a weapon." Thus, it includes nonexplosive as well as explosive devices. If the U.S. applies this definition to the NPT, it has assumed an added restriction on its own. See Albert Ferri, Jr., "Legal Considerations and Constraints on U.S. Nuclear Policy," SSC-TN-8974-68, Stanford Research Institute, December 1972.

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and transferred. Further, there are also interesting possibilities concerning nonexplosive nuclear weapons, i.e., radiological weapons for radioactive barriers.

### B. U.S. Alternatives after Commitment to a Weapons Program

The second major set of U.S. response options to be examined are those alternatives available to the U.S. after an Nth country has made a commitment to a weapons program, or after the "substantial progress" required by existing U.S. atomic energy legislation has been achieved. These options can be divided into three general categories.

#### 1. Dissuasion or Obstruction

Dissuasion or obstruction of a fledgling nuclear weapons program once a clear commitment has been made or substantial progress in a weapons program has taken place appears to be politically infeasible, economically unpromising, and most likely to be counterproductive in that India and Japan may be driven toward Peking or Moscow by such U.S. action.

#### 2. Acceptance

Inasmuch as the U.S. will have no practical alternative to dissuasion or obstruction, acceptance of an Indian or Japanese decision seems likely, although Washington can continue to disapprove of the development or it can adopt a benevolently neutral posture. Adoption of a disapproving attitude is more consistent with a continued antiproliferation policy; benevolent neutrality is more consistent with other U.S. interests involved, including good relations with the new nuclear weapons power.

#### 3. Cooperation and Assistance

There is a school of thought that holds that U.S. cooperation with, and assistance to, France, once France's determination to have a nuclear weapons program became clear, would have helped in avoiding major problems with France and in NATO. Despite the complexity of reasons for U.S. policy toward a nuclearized France, there seems sufficient validity to this point of view that it should be carefully considered should India

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or--more especially--Japan decide to go nuclear. The possibility that the U.S. erred in its response to France after the point of "substantial progress" had been passed, plus the fact that the most important U.S. interest in the Asian-Pacific region appears to be prevention of a shift in the power balance making it unfavorable to the U.S., suggests that the U.S. should not attempt to obstruct a friendly nations weapons program once "substantial progress" is made. Instead, priority should be given to efforts designed to prevent Japan from moving apart from the U.S. and into the Soviet or Chinese alliance system and prevent India from moving further into the Soviet system by employing various types of cooperation and assistance which would tie the respective nation more closely to the U.S.

The opportunities for cooperation and assistance can be divided into three categories: general cooperation and assistance not involving nuclear weapons, nonnuclear technical cooperation and assistance relating to nuclear weapons, and technical cooperation and assistance of a nuclear nature.

a. General Cooperation and Assistance Not Involving  
Nuclear Weapons

(1) Japan

Japan's economic progress to date and her economic well-being in the foreseeable future are absolutely dependent upon the ability to import raw materials. The most crucial of these is petroleum from the Middle East and Indonesia. If the United States were to evidence substantive interest in assisting Japan to guarantee its petroleum supply, even tie Japan to the U.S. in this area of concern, that would create strong reasons for continued Japanese alliance with the U.S. after acquisition of nuclear weapons. In this regard, three opportunities are apparent.

First, it is expected that the U.S. will soon import 30 percent of its petroleum (and an increasing amount in the future); Japan imports 97 percent of its petroleum (much from the Middle East). Western Europe imports a greater percentage of its petroleum than the U.S. but less than Japan (most from the Middle East). There is then ample reason

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for the three greatest users of petroleum to band together to secure their importation of petroleum from physical disruption, political blackmail, and undue financial costs. Europe aside, such meshing of the petroleum importation futures of the U.S. and Japan could greatly encourage Japan to remain in alliance with the U.S. and to avoid becoming so dependent upon the Soviet Union for fuels that Moscow could exercise leverage in detaching Tokyo from the American alliance.

A second form of important Japanese-American cooperation arises in connection with the fact that the Japanese must transport their petroleum long distances over potentially vulnerable searoutes. These searoutes extend 7,000 miles from the Middle East, and 3,000 miles from Indonesia, across international waters patrolled by the U.S. ships but not by the Japanese Navy, near to U.S. naval bases but not Japanese bases. Even though there is no present direct threat to the vital Japanese tankers, Tokyo is aware of this weakness. The U.S. could advance its relationship with Japan by discretely offering to assure Japanese shipping along the oil lifeline should difficulties arise.

Third, greater assistance to Japanese efforts to develop nuclear energy might help to keep a post-nuclear Japan in the American alliance system. Such cooperation could include participation in joint research designed to lead to the development of a breeder reactor and work upon fusion. This type of cooperative activity would be in addition to the present program of supplying enriched uranium for the Japanese light water reactors.

If implemented, these three types of actions relating to Japanese energy concerns would result in binding Japanese interests in maintaining high energy use to continued friendly relations with the U.S. In such a context, a nuclear armed Japan would probably not shift its power into the Soviet or PRC orbit. Instead of being threatening, a nuclear armed Japan associated with the U.S. because of energy cooperation would basically be an asset to the U.S.

In addition to efforts to tie Japan to the U.S. in regard to energy policy cooperation and assistance, Washington could enhance the possibility of Japan's remaining in the U.S. alliance system by taking care not to affront Japan, as it did with the 1971 "Nixon shocks."

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Finally, continued U.S. assistance to Japanese conventional military programs should be instrumental in preventing Japan's abandoning the U.S.-Japan alliance. A considerable amount of U.S. conventional equipment is already being used by the Japanese, including F-86, F-104, and RF-4 jets, and Hawk, Tarter, and Nike-Hercules SAMs. Continuation or expansion of such assistance could contribute to keeping Japan attached to the American alliance system.

Perhaps the most pressing need of the Japanese regarding assistance from the U.S. concerning conventional weapons is the area of naval weapons and ships. This need is related to the aforementioned dependence of Japan on importing most raw materials, especially petroleum, and to the fact the Maritime Self-Defense Force is quite inadequate to afford protection at any distance from the home islands. This weakness may be judged from the fact the Japanese possess only 11 submarines, 28 destroyers, of which one is a Tarter SAM ship, 12 destroyer escorts, and 20 submarine chasers.

The Japanese naval weakness could provide the U.S. with several types of opportunities to further link Tokyo with Washington should the Japanese perceive the threats to their sea lifelines becoming more serious. For example the U.S. could provide additional ASW surface ships and submarines, and various detection apparatus, as well as light cruisers, for use in protecting the tankers and freighters bringing the raw materials to the home islands. Further, should the Japanese feel the need to venture with ships of their own construction, or those made in the U.S., far out along their shipping lanes, the U.S. could provide resupplying functions at American bases, or in terms of U.S. supply ships operating on the high seas. Of course the appearance of Japanese naval vessels where they have not been seen since World War II could create some political difficulties, as could increased American naval presence to assist the Japanese in maintaining the security of their shipping lanes, particularly in the Indian Ocean.

### (2) India

Unlike Japan, India is not dependent upon long searoutes for the importation of energy sources and, being much less industrialized than Japan, also does not require the energy supplies used by the Japanese.

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There is, however, a different kind of weakness affecting India which has provided the U.S. with leverage over New Delhi. Continued Indian failure to achieve self-sufficiency in food grains has caused a degree of Indian dependence on American food grain shipments. How long such dependence will continue is difficult to predict. Proponents in India of the "Green Revolution" claim that India will soon be able to feed herself. However, New Delhi may find that until the population growth is substantially slowed, incremental increases in agricultural production will be literally eaten up by the population growth. Furthermore, until significant reserves are accumulated, drought or flood could retard progress in this area, at least until the next year's crop was harvested. Importation of food grains from the Soviet Union is still uncertain, as the Soviet Union has been unable to maintain a sustained food surplus in recent years. Thus, it appears likely that the U.S. will continue to have the opportunity of supplying India with food grains in exchange for which Washington can require at least a nonhostile Indian attitude on basic issues.

Another form of present Indian reliance upon the U.S. which may ultimately fade is technology transfer for the more advanced portions of the Indian industrialization program, e.g., in nuclear energy and space research. Here, although the Indians are striving for independence from foreign sources, they still need outside, including American, assistance.

Another facet of the general cooperation and assistance possibilities which the U.S. could consider in terms of preventing India from further movement toward Moscow's orbit after nuclear weapons capability is achieved concerns the U.S. relationship with Pakistan. As long as Washington supports Rawalpindi in either military or verbal terms, India will remain incensed and thus more receptive to the blandishments of Moscow. The time may come when the U.S. will have to choose between Pakistan and India.<sup>1/</sup>

b. Technical Cooperation and Assistance to the Nonnuclear Facets of Nuclear Weapons

(1) Japan

Of the several possibilities that fall under the category of assistance to nonnuclear facets of nuclear weapons programs, perhaps

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<sup>1/</sup> This is complicated by Iran's concerns about India and U.S. future dependence on Iranian oil.

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the most likely to be accepted by both the U.S. and Japan is U.S. safeguard transfer. During the past two decades, the U.S. has developed a wide variety of political and technical safeguards to prevent the unauthorized use of nuclear weapons or their accidental detonation. They incorporate technical design features to make weapons "one point safe" to guard against accidental detonation, and other devices and procedures which include Fail Safe, Permissive Action Link (PAL), and, in the future, may include Weapons Intelligence System Program (WISP). To the extent that safeguard hardware is external to the nuclear weapon components, its transfer would be considered assistance in regard to nonnuclear facets of nuclear weapons. However, it is not clear whether particular safeguard devices would in transfer violate the NPT obligations of the U.S.

The case in favor of safeguard transfer by the U.S. has been forcefully presented by the current director of the Los Alamos Scientific Laboratory, Dr. Harold Agnew when he said:

...it is not clear that it is entirely to a nation's benefit that the ingenious and advanced technology which contributes to command, control and custody, and basic safety should be considered to be in the same category with delivery systems and warhead designs. Is it really in the best interest of the United States that the nuclear weapon systems of other sovereign states be less safe than ours? That they should be more susceptible to accidental or unauthorized launch? That they should be more susceptible to takeover by those who see more leverage in stealing a nuclear weapon than in commandeering an airline? I think not.<sup>1/</sup>

For their part, it would seem the Japanese would be interested in nuclear weapons safeguards in order to offset domestic criticism of the government acquiring nuclear weapons.

In addition to the safeguards mentioned above, the U.S. has developed a number of nonhardware procedures to further reduce the risks of unauthorized use or accidental detonation due to human failure. These procedures run the gamut from the establishment of psychological

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<sup>1/</sup> Speech by Harold M. Agnew, Director Los Alamos Scientific Laboratory, before Council on Foreign Relations, 27 November 1972.

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parameters within which personnel associated with handling of nuclear weapons are to fit, to procedures regarding the custody and handling of nuclear weapons, including the handling of fissile material before it is made into weapons.

The sharing of safeguard information and technology with the Japanese would probably not be as likely to tie Tokyo to Washington as some of the relationships discussed previously in regard to energy matters. However, safeguard transfer would seem to be of interest to both parties and would therefore assist in maintaining good U.S.-Japan relations if effected.

### (2) India

Dr. Agnew's remarks (quoted above) apply equally, if not more so, to India. In fact, in the sense that Indian safeguards may be less advanced than those of Japan, New Delhi may be in greater need of proven safeguard systems. Extension of safeguards which would not violate the Atomic Energy Act (as amended) would therefore seem a logical means of improving Indian-American relations in the post-nuclear acquisition period. Whether New Delhi would be interested in such assistance is another question, given Indian hesitancy to accept foreign assistance. Furthermore, little attention is directed to safeguards in the Indian literature.

### c. Technical Cooperation and Assistance Regarding Nuclear Facets of Nuclear Weapons Programs

#### (1) Japan

Some cooperation and assistance of a nuclear nature which is prohibited by both U.S. law and the NPT prior to Japan's obtaining a nuclear weapons capability would be legal after nuclear weapons acquisition. This is clearly the case in regard to the U.S. Atomic Energy Act and its amendments, which state that nuclear weapons information may be provided to a state that has made substantial progress with a weapons program if that nation is allied with the U.S. in a security pact. Whether or not the NPT applies to a nation which has demonstrated the capability to develop nuclear weapons is not so clear (literally the NPT only regards as "nuclear weapons states" those states possessing nuclear weapons at

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the time it went into force). If it does, the NPT could be voided should the U.S. feel it of sufficient importance to do so. In addition to the NPT and its own legislation, the U.S. is also limited by the Strategic Arms Limitations Talks (SALT) ABM Treaty, which prohibits the U.S. from assisting other nations to construct ABM systems.

Assuming that the U.S. decides to assist Japan after nuclear weapons capability has been demonstrated, what would Japan most likely request? Three types of assistance come to mind. The first would involve provision or assistance in construction of Polaris missile launching submarines and perhaps the missiles as well. Advanced reentry vehicle designs, including RV hardening multiple warhead and various penetration technologies, would (as with the British) obviously be of interest whatever the state of Soviet ABM capability at the time, although the greater the uncertainty about that capability, the more the interest. The second category of assistance the Japanese might require would be in regard to refining their nuclear weapons so that they would comprise flexible tactical weapons of various types and effects, advancements which the Japanese may not pursue immediately after "going nuclear." An example would be adapting Japanese weapons to antisubmarine warfare purposes by fitting the warhead either to torpedoes or air-to-surface missiles, an advancement the Japanese may not make concomitant with their first success at nuclear weapons construction. The Japanese may seek assistance after producing their first nuclear weapons in regard to safeguards which are integral parts of the bomb design, which could not legally be provided before demonstration of nuclear weapons capability. Any or all the assistance regarding nuclear weapons would seem to operate to keep the Japanese in the American alliance system.

### (2) India

Unfortunately, the Indian situation is not as conducive to the establishment of ties with the U.S. after demonstration of a nuclear weapons capability as is the case in regard to Japan. India does not have a treaty with the U.S., nor does it currently receive U.S. military equipment. Further, India is now linked to the Soviet Union in some regards, particularly in the area of military equipment. Soviet jets are being

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built on license in India, the Indian Air Force operates MIG-21s and SA-2s, and the Navy operates four former Soviet submarines, five former Soviet Petya-class destroyers, and six Osa-class patrol boats. While India could use more conventional military equipment in the current context, it would probably come from the Soviet Union. Finally, since atomic energy legislation prohibits the U.S. from giving assistance regarding nuclear weapons to states which are not allied to the U.S., it does not appear likely that Washington could seek to tie India to its alliance system by nuclear weapons assistance, even after the demonstration of nuclear weapons capability.

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## VI IMPLICATIONS FOR UNITED STATES DEFENSE PLANNING

### A. General Implications for U.S. Defense Planning

Three general but basic implications for U.S. defense planning are suggested by the study. (1) If the United States should be faced with the necessity of making a choice between preventing adverse power shifts in the Asian-Pacific region involving India and Japan, and preventing those two nations from acquiring nuclear weapons, it is far more important to achieve the former than the latter.\* (2) Should Japan and/or India develop nuclear weapons, while remaining close to the U.S. or neutral and not in partnership with China or the USSR, the development could be stabilizing in a worldwide context should the next five to ten years prove to be a time when relaxation in deployment of U.S. forces is coupled with the continuation of the surge in Soviet strategic and conventional build-ups, resulting in the global nuclear deterrent of the U.S. declining relative to that of the Soviet Union. In such a context compensatory nuclear weapons power centers might face potential aggressors with additional uncertainties that could take advantage of opportunities that otherwise might appear with reductions of U.S. forces overseas. New power centers concerned principally with regional defense could contribute to stability, as the Nixon Doctrine suggests. Japan or a nuclear India may constitute uncertainties for U.S. policy as well. As the first implication noted implies, however, a U.S. policy more flexible than "non-proliferation" could influence such developments in a way to promote U.S. interests. The compensatory possibilities associated with the growth in Japanese and Indian nuclear weapons power would appear to be considerably enhanced should the PRC continue at odds with the Soviet Union and should the nuclear weapons strength of Peking continue to increase. (3) Should Japan and India develop nuclear weapons the possibility of nuclear accidents, unauthorized behavior, and the pilferage of nuclear weapons and/or fissile material may also increase.

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\* In stating this it should be noted that in some contexts pursuit of both objectives need not be mutually exclusive.

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So too do the possibilities for authorized use of nuclear weapons. The risks of the former may be reduced by U.S. provision of hardware safeguards and related administrative procedures. The latter may be reduced in terms of possibilities with better diplomacy on the part of all major powers in the Asia-Pacific area.

### B. Specific Implications for Major Power Relations in Pacific Asia

The above three basic implications are derived from implications that relate to alliances and major power interfaces in the Asia-Pacific area. These are set forth below.

#### 1. Implications of Proliferation for Indian-Soviet Relations

In the absence of compelling cultural affinity, defense interest mutuality, or economic necessity to the contrary nuclear weapon acquisition could be expected to have the effect of strengthening the traditional Indian quest for independence from foreign influence. Consequently, it could be expected that the development of nuclear weapons by India would not increase Indian-Soviet ties and could well degrade the relationship between New Delhi and Moscow which is perceived by many in India as merely being a temporary expedient for both nations. The possibility that acquisition of nuclear weapons would reinforce Indian independent tendencies could be influenced by actions taken by the United States. Conversely, it could be eroded by other actions. For example, a range of U.S. responses to Indian proliferation extending from official belittlement to hostile action (stopping U.S. assistance programs) would probably force India, despite the counter tendencies generated by nuclear weapons development, to consort further with the USSR. Alternatively, benign official comment or no comment in response to Indian proliferation, coupled with continued or increased modernization assistance (in agricultural products and space technology for example), would appear likely to reinforce centrifugal tendencies relative to association with the USSR generated by acquiring nuclear weapons.

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### 2. Implications of Proliferation for Indian-Chinese Relations

To the extent that India did not, at the time of nuclear weapons acquisition, increase its independence of the USSR, the Chinese could perceive the event as being a further strengthening of the Soviet encirclement of Peking. Despite the anti-Chinese rationale which will likely play an important part in any Indian decision, Chinese reactions to New Delhi acquiring a nuclear weapon would be dampened if the Indian action took place in the context of greater independence from Moscow, and if the Indian forces appeared to be defensively oriented. Under some conditions, most especially the perceived encirclement of China, the chances are increased that Peking would consider making additional overtures to the United States to counter the Soviet efforts.

### 3. Implications of Proliferation for Japanese-Soviet Relations

Should the Japanese nuclear weapons acquisition occur in the context of significant joint economic endeavors by Tokyo and Moscow, it is likely the Soviets would elect to live with the Japanese nuclear activity rather than to attempt threatening or coercive efforts to choke it off. The reason would be Moscow's interest in retaining the economic benefits accruing from the continued cooperative activities. On the other hand, should the U.S. lose strategic advantage to the Soviet Union, and/or should the Japanese become strategically decoupled from the U.S., the Soviets might believe they could "have their cake and eat it too." This would involve harsh pressuring upon the Japanese to cease their nuclear weapons development while Soviet-Japanese economic cooperation continued.

### 4. Implications of Proliferation for Japanese-Chinese Relations

Because of the potential for Japan to build a very significant nuclear force relative to China, and because of the recollections of the Japanese occupation, the Chinese will likely view Japanese acquisition of nuclear weapons with considerably more concern than they would similar action by India. Depending upon the state of Japanese-Soviet relations, especially in regard to joint economic development of the latter's maritime

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provinces, and Japanese association with the Republic of Korea, the Chinese could view Japanese nuclear acquisition as part of Soviet encirclement in the first instance; and of renewed Japanese imperialism in the second instance. Should this be the Chinese view, Peking might seek better relations with the United States as a compensatory strategy.

Chinese preemption is unlikely due to uncertainties regarding U.S. and Soviet responses.

### 5. Implications of Proliferation for Indian Relations with Lesser Asian States

Should India acquire nuclear weapons there would likely be little response from Australia, particularly would this be true should the current Socialist government remain in power. Little response would be expected from smaller Asian states such as the Philippines, Malaysia, Nationalist China, the Southeast Asian states, and Burma. Some of these states, fearful of resurgent Japanese power, might view with some satisfaction the development of Indian nuclear power as a partial counter to Japan. Also some states with large Indian minorities (e.g., Burma and Malaysia) may be wary of incipient nationalism among these groups and may wish to take some action to counter Indian influence. Indonesia, a very populous state with aspirations of becoming the great power of Southeast Asia, is likely to be suspicious of Indian aims and may well explore countermeasures including perhaps some nuclear activity of her own.

Pakistan (and China under some conditions as mentioned above) would seem to be the major exception to the proposition that an Indian proliferation would not greatly disturb most of Asia. Since Pakistan is not able in a technological sense to respond to an Indian nuclear weapons acquisition program, Rawalpindi's only recourse to counter an Indian bomb, other than accommodation, is to associate to a greater degree with a powerful state such as China or the United States.

Should Pakistan follow the accommodation course there seem to be few implications for the U.S. save for the fact that the United States would no longer need concern itself with military assistance to that nation, nor

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with relations called into play because of the SEATO Treaty. On the other hand, should the U.S. decide to assist Pakistan in the context of an Indian nuclear acquisition the possibilities would be grave for substantially increased exacerbation of relations between Washington and New Delhi, which would carry implications of increased Indian association with the USSR.

### 6. Implications of Proliferation for Japanese Relations with Lesser Asian Nations

It is unlikely that any Asian nation would regard Japanese acquisition of nuclear weapons with enthusiasm. On the other hand, it would be incorrect to posit that widespread alarm over alleged Japanese re-militarized activism would result. Feelings could run the gamut from a subdued expression it was not necessary (the Socialist government of Australia) to fear that the event presaged a return to Japanese strong-arm tactics (the Philippines).

Implications for the United States could take several forms. One form might be petitions from a number of the lesser states, particularly those with which the United States is allied, to guarantee in various ways their integrity vis-a-vis the Japanese. In seeking U.S. protection, these nations would likely cite the statement in the Nixon Doctrine that the United States will provide a shield to its allies and others whose integrity it considered in its interest, against nuclear threats. Another form could be requests from small Asian nations that the Japanese nuclear force be closely associated with the larger American nuclear establishment in the interests of safety, and of constraints being placed upon Japanese behavior.

Should small nation overtures be denied by the United States, there is some possibility that the Soviet Union or China might offer, on a quid pro quo basis (base rights being exchanged for big power protection) to counter Japanese nuclear power in various ways.

### 7. Implications of Proliferation by India and Japan upon Each Other

The implications of either India or Japan acquiring nuclear weapons upon the other because of security concerns probably will be slight. This

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is because neither is perceived by the other as a threat at this time. However, the nuclear acquisition by either nation could serve as a public justification for nuclear weapons development, with the decision to do so already made on other grounds. More important in terms of influence upon Indian or Japanese action, would be the tangible benefits attributed by either to the other's new nuclear weapons status. In this regard one may wonder if the Indians are even now envious of the Japanese and the support for a permanent seat upon the Security Council of the United Nations which Mr. Tanaka carried back with him from Washington in the summer of 1973.

### 8. Direct Implications of Proliferation by India for the United States

An obvious implication is heightened concern over unauthorized behavior, accident, and the pilferage of nuclear weapons, which may be exacerbated by the generally lower quality of technology in India. While the implications for the U.S. will be dependent upon the conditions in which India goes nuclear and also the policies the U.S. then pursues, it has been concluded that the implications need not be unfavorable--might on balance be favorable to U.S. interests. On the other hand, disadvantageous implications are possible, including: conflicts between U.S. friends and allies such as Pakistan and Iran and India, and Indian (or Indian-Soviet) control over the commercial shipping (oil) in the Indian Ocean. It is possible that a nuclear armed India could develop an imperialistic taste for smaller neighboring states. Such a development would not directly endanger American interests unless New Delhi harbored designs upon the Persian Gulf area which will increase in importance as the energy crunch deepens for the U.S. Should India covet the Persian Gulf states a direct confrontation with the U.S. would be likely as long as Persian Gulf oil is important to the United States. The major advantageous implication is that such a development could strengthen traditional independent sentiments within India vis-a-vis the Soviet Union, and could--if India remained defensive--increase stability and decrease aggressive opportunities in that region. Thus, there might occur some opportunities for the United States carefully and with discretion to rework its degraded relations with India in the event of Indian acquisition of nuclear weapons. Even if that

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fails the weaning of New Delhi from Moscow's influence as a result of nuclear weapons development would appear to be a positive implication for the United States.

Another possibility for a positive implication in the event of Indian proliferation, a possibility which could help balance the disadvantageous implication suggested with the thought of accidents, unauthorized behavior, and pilferage, would be the opportunity for the United States to make available to New Delhi both hardware and administrative safeguards for nuclear weapons thus enhancing Washington-Delhi contacts.

### 9. Direct Implications of Proliferation by Japan for the United States

Aside from the uncertainties associated with the appearance of a new nuclear weapon state and the uncertainties about Japan's behavior as a major military power, there appear to be no necessarily or immediately disadvantageous implications for the United States associated with Japanese attainment of nuclear weapons status. There are, however, some possible implications for the United States, which if not directly dangerous, do appear to be complex and difficult of resolution. These are examined below.

### C. Three Major Questions Raised for U.S. Defense Interests by Possible Indian-Japanese Nuclear Proliferation

The above general and specific implications of Indian and Japanese nuclear proliferation raise three major questions for U.S. defense planners. These are:

1. Is there any threat to the United States, an ally of the United States, or to a nation whose continued viability is considered vital to the United States should Japan or India develop nuclear weapons?

2. Is there any possibility that Japanese and/or Indian nuclear weapons programs would prove useful to the United States in regard to either (a) the constraint of Soviet military activity, or threats based upon military power, in the context of a declining U.S. strategic capability vis-a-vis that of the Soviet Union; (b) arms control negotiations with the Soviet Union. Another way to put it is: could such developments be used to further U.S.

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interests in Asia and to advance U.S. arms control interests in arms negotiations with the Russians?

3. How might the United States link emerging Indian and/or Japanese nuclear forces to the American defense establishment? The spectrum of general possibilities includes: (1) transfer of selected U.S. nuclear weapons safeguards for use as the Japanese/Indians determine is best; (2) cooperative arrangements between the U.S. nuclear forces and those of Japan/India; (3) merging of the nuclear forces of the United States and Japan/India but with some independence of action reserved to all participants; (4) incorporation of the Japanese/Indian nuclear forces into the U.S. defense establishment with little or no independence of action retained by them.<sup>1/</sup>

First Question--Japan--The study group perceives no immediate or necessary threat to the United States, to its allies, or to nations whose viability is considered vital to the United States should Japan develop nuclear weapons. Thus there are no immediate requirements for the United States to consider defensive preparations in anticipation of a possible Japanese nuclear weapons program. However, it should be noted that in a dynamic world conditions may change to the point where defensive plans could be needed in regard to a nuclear weapon Japan. Further, the assessment that Japanese acquisition of nuclear weapons does not require defense considerations may not be shared by all Asian nations, some of which would doubtless perceive such a move by Japan with considerably less equanimity. Therefore the United States should be prepared to consider ways to reassure its other Asian allies against the possibility of Japanese expansion.

First Question--India--To the question of what threats need the United States be attentive to should India acquire nuclear weapons the study group gives an ambiguous answer of probably none.<sup>2/</sup> The ambiguity is caused by a set of factors which place a nuclear weapons India in a different context vis-a-vis the United States than a nuclear Japan. First there is the matter of Pakistan. Allied to the United States through the SEATO

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<sup>1/</sup> This latter option is considered very unlikely.

<sup>2/</sup> One exception might be an IRBM threat to Mid-East oil.

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organization, recipient of U.S. military and economic assistance, Pakistan has until recently been recognized by India as an enemy state, and may be so viewed again. Thus the problem arises as to whether, and if so how, the United States should assist Rawalpindi if Pakistan is confronted by a nuclear India, possibly backed in the wings by the Soviet Union. It is not likely that a future engagement between India and Pakistan would necessitate New Delhi having to resort to nuclear weapons; however, that possibility cannot be entirely discarded. It is by no means a certainty that a nuclear armed India would feel impelled to attack Pakistan as Pakistan is apparently not viewed by India as a threat now. Still, contingency planning should a nuclear armed India attack Pakistan is required.

The United States could although it seems unlikely at present, become involved militarily in a dispute between Iran and India. The former, which like Pakistan is a Muslim but not an Arab nation, generally has friendly relations with India although this was not always true, due to the Pakistani-Indian dispute. The most salient problem which might arise between India and Iran would occur should India attempt to fragment Pakistan by supporting the creation of a Baluchistan state. Since Baluchi peoples inhabit the Makran highlands in the southeast corner of Iran, adjacent to Baluchistan and Sistan provinces in Pakistan, it is conceivable that an Indian effort to profit from the latent Baluchi nationalism could cause severe friction with Iran should the Iranian Baluchis then seek secession from Teheran. In that case Iran could respond using U.S. equipment, and might seek assistance from the United States which would look favorably upon granting such assistance because of the growing dependence Washington has upon Persian Gulf oil. Contingency plans for U.S. military assistance to Iran in the postulated circumstances, although of a low level of importance now, should be considered.

The probability of a nuclear armed India siding much more closely with the USSR does not seem very great. That probability, however, would undoubtedly be influenced by the policies and actions adopted by the U.S. and by the USSR in face of an Indian nuclear program. The U.S. should reduce that probability insofar as possible since the consequences of an

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Indo-Soviet nuclear rapprochement would be serious, particularly so should the Soviets obtain as a quid pro quo for assisting the Indian nuclear program base rights for the Russian Navy on the Indian Ocean.

Perhaps the most realistic threat to the United States, although the term threat is not entirely appropriate in the context, would occur should a nuclear armed India seek to expell U.S. Naval forces, particularly SLBM submarines, from the Indian Ocean. That New Delhi might seek to accomplish this objective, even without prodding from the Soviet Union, is rather likely given the previously stated Indian views that foreign naval forces ought not be operating in the Indian Ocean, and given the bitter response to the USS Enterprise entry into the Bay of Bengal during the Indo-Pakistani War of 1971. For these reasons attention should be given to alternative Navy basing plans, including measures to compensate for movements of the SLBM submarines, should India seek to exclude U.S. Navy craft from the Indian Ocean.

Second Question--Japan--The U.S.-Soviet strategic balance has steadily been shifting in favor of the USSR and appears very likely to continue doing so over the next few years. As has been acknowledged by U.S. civilian and military authorities, the circumstances in which a U.S. strategic nuclear deterrent is applicable have been reduced as a consequence. In this context, the development of a counterveiling nuclear power locus in Japan could contribute to enforcing stability in Asia and to U.S. security interests worldwide.

Second Question--India--It is possible that the emergence of India as a nuclear weapons power would contribute to the uncertainties facing a Soviet strategic planner, and possibly add that extra bit of uncertainty needed to constrain Soviet nuclear or other large scale attack on the American allies and nations considered vital to American security in Asia. However the study group does not view this possibility as high (certainly not as likely as could be the case with Japan). Several reasons set forth in greater detail in Input Substudy B account for this perspective. First, should India "go nuclear" the forces would likely be tailored to provide a deterrent against Chinese strategic attack, such as tactical nuclear weapons

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for use against Chinese ground attack, as anti-aircraft SAMs, and as naval weapons for use in the Indian ocean and adjacent salt water. Such weapons would be of only very marginal utility as constraints upon Soviet behavior because their effectiveness against the USSR would be low or non-existent. Second, the technological and economic base from which India must proceed toward nuclear weapons acquisition does not permit the development of large, sophisticated, long range strategic forces at the outset of nuclear acquisition, nor indeed at any time relatively soon after an Indian nuclear debut.

Third Question--Japan--The study group felt that transfer of selected U.S. nuclear weapons safeguards to Japan, and the instigation of cooperative arrangements between U.S. nuclear forces and those of Japan, were the most desirable of the four possibilities listed under the general heading of links between a Japanese nuclear force and the U.S. defense establishment.

Transfer of Safeguards--There are sound non-political reasons which support the transfer of U.S. nuclear weapons safeguard devices to a developing Japanese or Indian nuclear weapons force. These are the added safety against accident, unauthorized behavior, and pilferage which U.S. safeguards should offer in comparison to newly developed Japanese safeguards.

It should be stressed that the political benefits for the U.S. attendant upon safeguards provision are probably more important than the increased safety against accidents, presuming the Japanese will be relatively effective in designing their own safeguards. These political benefits include (1) the maintenance of friendly relations with Japan during the nuclear weapon emergence period (which would be in contrast to the frictions which developed between Washington and Paris during the French development of nuclear weapons); (2) the reduction of destabilizing fears on the part of other nations, including the PRC and USSR, which if not dampened could lead to the necessity of increased U.S. involvement in Asian matters; (3) the building of a military nuclear interface with Japan which could serve as the basis for expanded cooperation if that is thought necessary.

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From the Japanese perspective the offer of U.S. nuclear weapons safeguards could be attractive for three basic reasons. First, the Japanese government would probably be interested in obtaining the highest degree of safety for its new weapons as possible. Second, should the Japanese be reluctant to involve themselves any further with the United States the safeguard provision linkage might be sufficiently low-profile to be acceptable to Japanese nationalism\* while communicating to the PRC and USSR that Japan possessed some nuclear ties with Washington in addition to the U.S. Japanese Treaty. Presumably ties with a superpower would be welcome to Tokyo during that period when its nuclear forces were weak and developing. Lastly, as brought out in Input Substudy C, the Japanese are sensitive to the probability that their acquisition of nuclear weapons would be profoundly disturbing to (a) many in Japan, (b) other Asian nations, (c) the Chinese, (d) the Soviets, and (e) the Americans. In this context any Japanese government which authorized development of nuclear weapons would probably seek to reassure all of its stability and rationality. One way to do so would be for Tokyo to publicly utilize American nuclear weapon safeguards in its emerging nuclear weapons force.

Nuclear Forces Cooperation--The implications for defense planning most difficult to comprehend regarding Japanese nuclear weapons acquisition concern cooperative arrangements between Washington and Tokyo beyond safeguard sharing. The conceptual difficulties derive from the necessity to harmonize within the context of relations between two sovereign nations two contradictory political imperatives. On the one hand there is the need to relate a Japanese nuclear force to the U.S. strategic posture. On the other hand there is the necessity to ensure that Japan cannot use a nuclear relationship with the United States to "trigger" the employment of American nuclear weapons. The capability to commit the United States to nuclear use, or to place the United States in circumstances requiring nuclear weapons, is not divisible, and must remain solely with the United States.

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\* It may be assumed that Japanese nationalism would be running high in the event the Japanese decide to develop nuclear weapons.

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The implications for American defense planning in terms of a cooperative nuclear weapons relationship with Japan, and some of the complexities of such a relationship, are suggested below.

### 1. Cooperative RDT&E and Hardware Sharing

After Japan attains the initial status of a nuclear weapons state much will remain to be accomplished before Tokyo can possess a credible deterrent posture vis-a-vis the USSR. During this transitional period assistance from the United States could save time for the Japanese in their move toward a credible nuclear force; could help in tying Japan to the United States in defense matters; and could provide the United States with leverage in dealing with Tokyo on defense and other subjects. Assistance could run the gamut from the extension of technological aid to the provision of certain hardware items "off the shelf." Related to the development of a nuclear weapons assistance relationship with Japan would be decisions as to what kind of nuclear force it would be in the interests of the United States for Japan to have, and whether the United States possessed the leverage necessary to influence Japanese actions. Further, there are questions about when, in reference to the initial demonstration of nuclear weapon capability, the United States should extend assistance to Japan, and the extent to which the timing is sensitive to restrictions in the NPT.

### 2. Cooperative Warning

Implications for U.S. defense planning in this area relate to the degree to which the United States may wish to supply the Japanese with very long range warning from the American intelligence community; the extent to which the United States will want to tie in the Japanese to BMEWS and satellite warning nets; and the degree to which the United States intends to share warning information immediately prior to and during an attack.

### 3. Cooperative Targeting

Concerning targeting, the major implications for U.S. defense planning revolve about the extent to which the United States desires

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to inform the Japanese about the SIOP, the number and type of targets to be delegated to the Japanese from the SIOP, and the confidence the United States has that such delegated targets will be successfully attacked by the Japanese. Should the Japanese restrict their nuclear forces to defensive tactical weapons the joint targeting problem would be made much simpler in one regard as Tokyo would presumably control weapons used in the defense of the Home Islands, with strategic weapons use, if any, being the responsibility of the United States.

#### 4. Command, Control, and Communication

Basic implications in this area include determination of ways to interface the command and control apparatus of the two nations to enable political and military decisionmakers to coordinate their moves in normal times, and during a crisis.

#### 5. Cooperative Strategic Planning

Cooperative efforts in the above area imply cooperation also at the level where the disparate elements of the United States and Japanese nuclear forces, and each nation's foreign policy objectives, are joined together under the aegis of a common strategic doctrine. The complexities of such an effort are suggested by the fact that after years of effort problems of a doctrinal nature remain between the United States and its NATO allies. Secretary of Defense Schlesinger recently attested to the difficulties of cooperative policy making in the following way in reference to NATO:

...the problems of the alliance very frequently are qualitative--command and control, the coherence of alliance, and the ability of the alliance to respond as a unit to warning, and to take effective action. Individual nations within the alliance must cohere around the policy, and that is one of the problems that we shall most intensively study.<sup>1</sup>

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<sup>1</sup> Nomination of James R. Schlesinger, To Be Secretary of Defense, Hearings before the Committee on Armed Services United States Senate, 93d Congress, 1st Session, p. 52 (18 June 1973).



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### 6. Uranium Supplies and Bilateral Safeguards on Reactor Plutonium

Tangentially related to the establishment of a cooperative U.S.-Japanese nuclear relationship is the subject of fissionable materials for the Japanese arsenal. This matter is important because (1) Japan receives most of its enriched uranium fuel for power reactors from the United States and (2) because Japanese light-water reactors are covered by American safeguard agreements which prohibit the diversion of plutonium to weapons purposes. These agreements might require renegotiation should Japan develop nuclear weapons and should Washington perceive it as in U.S. interests for Japan to move rapidly from initial demonstration to credible deterrent force vis-a-vis the Soviet Union.

Third Question - India--While there may be instances when it would be in the U.S. interest to establish links between an Indian nuclear weapons force and that of the United States the opportunities for this appear low. The reasons were indicated at length in Input Substudy B, and may be summarized as follows: (1) the traditional Indian preference for an independent stance in regard to international relations; (2) an intense effort by India to achieve self-sufficiency in technology; and (3) a skepticism concerning reliance upon the superpowers.\* It must be added that the degree to which Americans depreciate India does not augur well for interest in Washington for cooperative nuclear relations with New Delhi. Lastly, it should be re-emphasized that the technological base upon which an Indian nuclear force would rest is not such as to encourage expectations of any meaningful deterrent against the USSR for many years. Thus an Indian force would have little apparent value to the United States as a balancing factor vis-a-vis the USSR during a period of possible decline in the U.S. deterrent.

In conclusion it should be understood that nothing in this study should be interpreted as suggesting the United States abandon its opposition to the proliferation of nuclear weapons in general, or in specific regard to Japan and India. What the study does suggest is that for contingency

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\* As noted in Substudy B many in India view the Indo-Soviet Treaty as merely a temporary expedient and not as a fundamental change in the Indian pattern of avoiding alliances.

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planning there are a number of major implications for the United States which arise from the possibility that Japan and/or India will develop nuclear weapons in this decade. These implications should be studied in advance of their possible occurrence in order to illuminate how disadvantageous consequences can be minimized while extracting the maximum advantage for the United States.

A final and objective perspective of the relative tradeoffs between disadvantageous implications of proliferation, such as increased chances for either purposeful or accidental use of nuclear weapons, and alternatively advantageous implications of proliferation, such as the creation of additional checks upon Soviet and Chinese aggressive tendencies, is unlikely. This is due to the subjective feelings about the utilities and disutilities of nuclear weapons and the fears of the Communist threat which different persons hold.

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\*To include Summary Report and Executive Summary; Input Substudies A-E;  
Input Substudy F (U).

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